08 - SBd - 10 – PM 30.9/R39.1
HA22 201.122
Project No. 0800020559
08804-0K290K
September 2011

SUPPLEMENTAL
PROJECT SCOPE SUMMARY REPORT
(ROADWAY REHABILITATION)

To

Request Programming in the 2011 SHOPP
And
Provide Project Approval

On Route Interstate 10

Between Junction Route 38/Orange Street

And Riverside County Line

I have reviewed the right of way information contained in this Supplemental Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

***BASEM MUALLEM**, DEPUTY DISTRICT DIRECTOR-RIGHT OF WAY*

APPROVAL RECOMMENDED:

***JOHN ASHTON**, PROJECT MANAGER*

APPROVED:

***RAYMOND W. WOLFE**, DISTRICT DIRECTOR* — *DATE* 9/13/11

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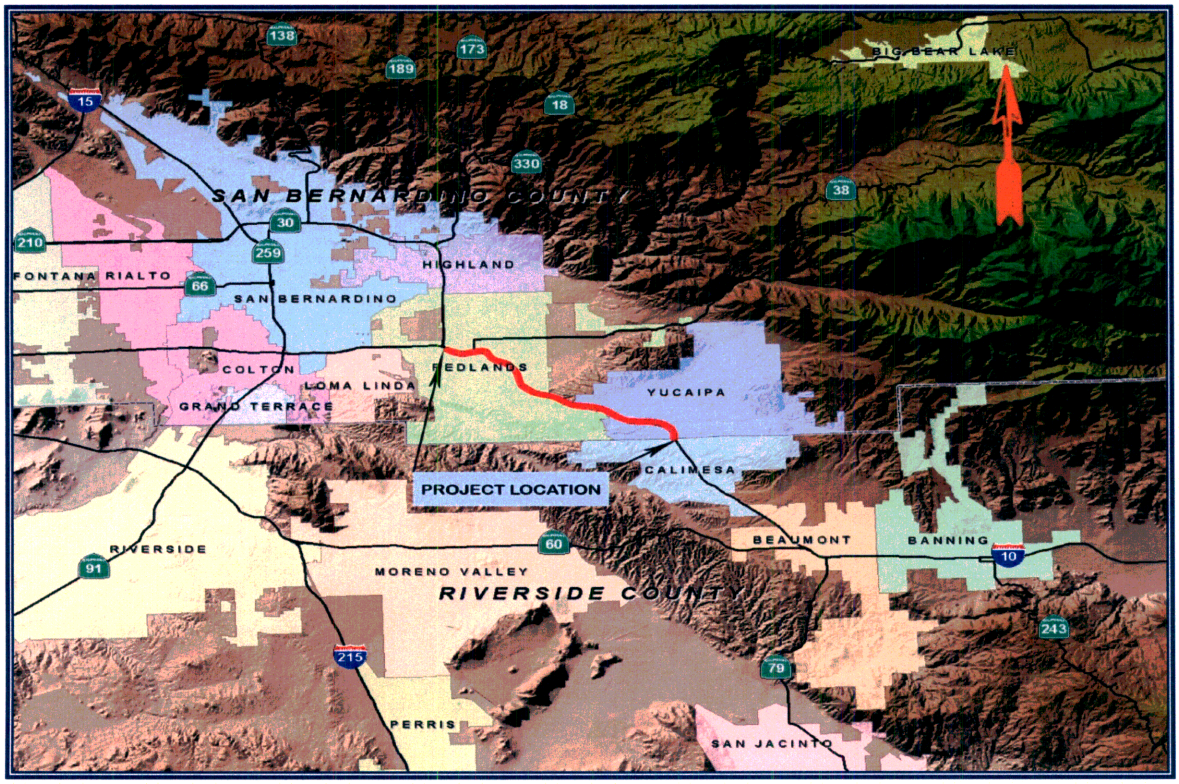

On Route Interstate 10

Between Junction Route 38/Orange Street

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08 - SBd - 10 – PM 30.9/R39.1
Project No. 0800020559
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This Supplemental Project Scope Summary Report has been prepared under the direction of the following Registered Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Minh Van Tran
MINH VAN TRAN
REGISTERED CIVIL ENGINEER

9/8/11
DATE

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1. INTRODUCTION AND BACKGROUND

Brief Project Description:

This Supplemental Project Scope Summary Report (PSSR) Roadway Rehabilitation has been prepared to document a change in scope since the approval of the Capital Preventive Maintenance Project Report (CAPM) dated September 4, 2007. The project as developed in conjunction with preparation and approval of the CAPM Project Report proposed to replace deteriorated slabs and to preserve the pavement service life for five years. The scope of the project now, as being addressed in the preparation of this Supplemental PSSR proposes to rehabilitate the existing Portland Cement Concrete Pavement (PCCP) within part of the project area by replacing with Jointed Plain Concrete Pavement (JPCP) to preserve the pavement service life for 40 years, and within the remaining part of the project area by cracking, seating existing pavement and overlaying with Hot-Mixed Asphalt (HMA) Concrete to preserve the pavement service life for 20 years. This project still also proposes to rehabilitate the Asphalt Concrete pavement on the exit and entrance ramps, and shoulders.

The project limits are on Interstate 10 (I-10) in San Bernardino County from the junction with State Route (SR) 38/Orange Street (PM 30.9) to the San Bernardino/Riverside County Line (PM R39.1).

Due to possible funding constraints, the project is being planned to be constructed in up to three (3) phases, if necessary, however the project will be constructed in fewer phases or all at once if required funding is secured. The currently planned construction phases are as follows:

PHASE	EA	LOCATION	DESCRIPTION
1	0K291	PM 30.9/33.3 From SR 38/Orange Street to Ford Street.	Lane Replacement
2	0K292	PM 33.3/R36.9 From Ford Street to Live Oak Canyon Road	Lane Replacement
3	0K293	PM R36.9/R39.1 From Live Oak Canyon Road to County Line Road	Crack, Seat and Overlay

Within the project limits, the portion of I-10 being planned to be constructed as phase 1, if phasing becomes necessary, has four-12 foot wide Mixed Flow Lanes (MFL) in each direction.

The portion of I-10 being planned to be constructed as phase 2, if phasing becomes necessary, extends from PM 33.3 to PM 36.9 and has four-12 foot wide MFL in both directions except eastbound from PM 33.3 to 35.0 which has five-12 foot wide MFL. Left

paved shoulder widths vary from 10 feet to 18 feet, and right shoulders are 10 feet wide.

The portion of I-10 being planned to be constructed as phase 3, if phasing becomes necessary, has three-12 foot wide MFL in each direction, 36-foot wide median, and right shoulders are 10 feet wide.

This project is classified as a Category 5 project as defined in the Project Development Procedures Manual (7th Edition, Part 2, Chapter 8, and Section 5) because of its minimal economic, social and environmental significance (see Attachment K). This project is eligible for programming in the 2012 State Highway Operation and Protection Program (SHOPP) under the 201.122/HA22.

See the Cost estimate for specific work items included in this project (see Attachment C).

Phase 1 – EA 0K291

Project Limits [Dist., Co., Rte., PM]	08-SBd-10 PM 30.9/33.3
Capital Costs:	$22,261,000
Right of way Costs:	None
Funding Source:	SHOPP 201.122
Number of Alternatives:	1
Recommended Alternative (for programming and scheduling):	Lane Replacement
Type of Facility (conventional, expressway, freeway):	Freeway
Anticipated Environmental Determination/Document:	Categorical Exempt Exemption for CEQA/ 6004 Categorical Exclusion for NEPA*
Legal Description	Roadway Rehabilitation

* The CEQA CE / NEPA 6004 CE is for the complete project. Cost estimate information is being developed for each of the phases in case it becomes necessary to construct in phases.

Phase 2 – 0K292

Project Limits [Dist., Co., Rte., PM]	08-SBd-10 PM 33.3/R36.9
Capital Costs:	$27,052,000
Right of way Costs:	None
Funding Source:	SHOPP 201.XXX
Number of Alternatives:	1
Recommended Alternative (for programming and scheduling):	Lane Replacement

Type of Facility (conventional, expressway, freeway):	Freeway
Anticipated Environmental Determination/Document:	Categorical Exempt Exemption for CEQA/ 6004 Categorical Exclusion for NEPA*
Legal Description	Roadway Rehabilitation

* The CEQA CE / NEPA 6004 CE is for the complete project. Cost estimate information is being developed for each of the phases in case it becomes necessary to construct in phases.

Phase 3 – 0K293

Project Limits [Dist., Co., Rte., PM]	08-SBd-10 PM R36.9/R39.1
Capital Costs:	$14,571,000
Right of way Costs:	None
Funding Source:	SHOPP 201.XXX
Number of Alternatives:	1
Recommended Alternative (for programming and scheduling):	Crack, Seat and Overlay
Type of Facility (conventional, expressway, freeway):	Freeway
Anticipated Environmental Determination/Document:	Categorical Exempt Exemption for CEQA/ 6004 Categorical Exclusion for NEPA*
Legal Description	Roadway Rehabilitation

* The CEQA CE / NEPA 6004 CE is for the complete project. Cost estimate information is being developed for each of the phases in case it becomes necessary to construct in phases.

2. RECOMMENDATION

It is recommended that the proposed mainline and ramps pavement rehabilitation strategies be implemented to reduce repetitive maintenance efforts and associated costs, increase the pavement life and ride quality, reduce the inconvenience to the traveling public, and minimize the exposure of maintenance personnel to traffic dangers. It is also recommended that this project be approved for funding and authorization be granted to proceed to the Plans, Specifications and Estimate (PS&E).

3. PURPOSE AND NEED STATEMENT

Need: The 2008 Pavement Condition Survey Inventory (PCSI) (Attachment D) data indicates that the pavement within the project limits exhibits extensive cracking, pot holing, faulting, and generalized poor ride quality. The inside and outside shoulders are badly

oxidized and cracked as well. The exit and entrance ramps exhibit similar pavement deterioration, particularly at ramp terminals where trucks distort the pavement during high temperature weather. The pavement in lanes #3 and #4 from PM 30.9/35.0, lanes #2 and #3 from PM 35.0/R36.9 except lane #2 in the eastbound, and lanes #2 and #3 from PM R36.9/R39.1 in both directions are particularly in need of full replacement, as the severe deterioration is beyond normal maintenance repairs and rehabilitation treatments. Interstate 10 is a major truck route and goods movement corridor of national significance.

Purpose: The main purpose or objective of this project is to restore the structural integrity and ride quality of the mainline and ramp pavement by rehabilitating or replacing the existing Portland Cement Concrete pavement and Asphalt Concrete pavement on the mainline and exit and entrance ramps, as appropriate. The proposed pavement rehabilitation strategies will improve ride quality, reduce maintenance frequency and costs, and increase the service life of the pavement.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA ROADWAY

4A. GEOMETRIC INFORMATION

	Facility (1)	Minimum	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
	Location	Curve Radius (Feet)	No. of Lanes	Lane Width (Feet)	Type (Flex, Rigid, or Composite))	Left (Feet)	Right (Feet)	Width (Feet)	Width	Width	(Y/N)	(Code/ Width)
Existing	PM 30.9/33.3	3600	4	12		10	10	Var.				
	PM R36.9/R39.1 Westbound	3000	3	12		3-5	10	36'				
	PM 33.3/R36.9 Eastbound	2000	4	12	Rigid	10	10	-	N	N/A	N	N/A
	PM33.3/35.0	2000	5	12		10		-				
	PM35.0/R36.9		4	12		10		-				
Proposed	PM 30.9/33.3	3600	4	12		10	10	Var.				
	PM R36.9/R39.1 Westbound	3000	3	12		3-5	10	36'				
	PM 33.3/R36.9 Eastbound	2000	4	12	Rigid	10	10	-	N	N/A	N	N/A
	PM33.3/35.0	2000	5	12		10	10	-				
	PM35.0/R36.9		4	12		10	10	-				
	Min. 3R Stds.	2100		12	N/A	10	10	62	N/A	N/A	N/A	N/A

Column "Other Bicycle Lane Width": Width of a bicycle lane that is outside the shoulder and is part of the traveled way.

4B. CONDITION OF EXISTING FACILITY

(1) Traveled Way Data

PMS Category (1-29)_____7 Priority Classification (.1-.4) ____.2

Ride Score Varies from 64 to 184

*Rigid Pavement: *Flexible Pavement:

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking	9% (max)	Alligator B Cracking %	N/A
Faulting	Yes	Patching %	N/A
Joint Spalls	No	Rutting	N/A
Pumping	No	Bleeding	N/A
Corner Breaks	8% (max)	Raveling	N/A

Locations(s) of subsurface or ponded surface-water problem: None

Deflection Study Results (if available): Not Required

Remarks:

Mainline: pavement is rigid, therefore; there is no deflection study.
Ramps: Deflection Studies will be performed during the design phase if needed.

(2) Shoulder Data

Condition:

Based on field observation the shoulder pavement presents some visible damages such as extensive cracking, pot holing, and faulting which is evidence of pavement deterioration.

Deficiencies:

The asphalt concrete pavement of the shoulder has been deteriorated. In order to extend the life of the pavement, it is necessary to rehabilitate the existing condition of the shoulder pavement.

(3) Pedestrian Facility Data

FACILITY TYPE	LOCATION (S)	MEET ADA STANDARDS?	IF FACILITY DOES NOT MEET ADA STANDARDS, WHAT FEATURE (S) ARE NOT ADA COMPLIANT?	STATUS OF EACH NONCOMPLIANT LOCATION
Curb Ramps: PM 30.90	W/B on-ramp from Jct SR 38/Orange Street	Yes		
Curb Ramps: PM 31.20	E/B on-ramp from 6th Street	Yes		
Curb Ramps: PM 31.16	W/B off-ramp from 6th Street	Yes		
Curb Ramps: PM 31.72	E/B off-ramp from University Street	Yes		
Curb Ramps: PM 31.76	W/B on-ramp from University Street	Yes		
Curb Ramps: PM 32.30	E/B on-ramp from Cypress Avenue	Yes		
Curb Ramps: PM 32.28	W/B off-ramp from Cypress Avenue	Yes		
Curb Ramps: PM 33.01	E/B off-ramp from Ford Street	NO	Does not meet Standard Plan A88A & A88B	Propose to upgrade
Curb Ramps: PM 33.39	E/B on-ramp from Ford Street	Not Applicable	No sidewalk and no curb ramp	
Curb Ramps: PM 33.57	W/B off-ramp from Ford Street	Yes		
Curb Ramps: PM 33.0	W/B on-ramp from Ford Street	NO	Does not meet Standard Plan A88A & A88B	Propose to upgrade
Curb Ramps: PM 34.43	E/B on-ramp from Wabash Avenue	Not Applicable	No sidewalk and no curb ramp	
Curb Ramps: PM 34.40	W/B off-ramp from Wabash Avenue	NO	Does not meet Standard Plan A88A & A88B	Propose to upgrade
Curb Ramps:	E/B & W/B on/off-ramps from Yucaipa Blvd	Yes		
Curb Ramps:	E/B & W/B on/off-ramps from Live Oak Canyon Road	Yes		
Curb Ramps: PM 39.02	E/B off-ramp from Countyline Road	NO	Does not meet Standard Plan A88A & A88B	Propose to upgrade
Curb Ramps: PM 39.03	W/B on-ramp from Countyline Road	NO	Does not meet Standard Plan A88A & A88B	Propose to upgrade
Crosswalks:	Not Applicable			
Driveways:	Not Applicable			

Remarks:

There are no pedestrian facilities or shared bicycle adjacent to the roadbed.

(4) Bicycle Path Data

Deficiency	Location *(Station, post mile limits or other reference points)*
None	30.9/R39.1

Remarks:

There are no bike path facilities adjacent to the roadbed.

4C. STRUCTURES INFORMATION

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/No.	Exist	3R Std	Prop	(Y or N)	Exist	3R Std	Prop	(Y or N)	(Y or N)	(Y/N)	#
Jct SR 38/Orange Street/ 54-0581	171	-	171	N	14.9	15.5	14.9	N	N	N	
Sixth Street UC/54-0579	150	-	150	N	15.3	15.0	15.3	N	N	N	
Church Street UC/54-0578	150	-	150	N	15.4	15.0	15.4	N	N	N	
Redlands OH 54-0472	150	-	150	N	15.4	15.5	15.4	N	N	N	
University Street UC/ 54-0582	150	-	150	N	15.7	15.0	15.7	N	N	N	
Citrus Ave UC/54-0584	150	-	150	N	16.1	15.0	16.1	N	N	N	
Cypress Ave UC/54-0585	150	-	150	N	15.9	15.0	15.9	N	N	N	
Palm Ave UC/54-0586	153	-	153	N	16.2	15.0	16.2	N	N	N	
Highland Ave UC/ 54-0587	149	-	149	N	15.5	15.0	15.5	N	N	N	
Ford Street UC/54-0588	149	-	149	N	14.5	15.0	14.5	N	N	N	
Redlands Blvd Off-Ramp UC/	147	-	147	N	15.1	15.0	15.1	N	N	N	
Wabash Ave OC/54-0589	32	-	32	N	16.6	16.5	16.6	N	N	N	
Yucaipa Blvd OC/54-0495	79	-	79	N	17.9	16.5	17.9	N	N	N	
16th Street OC/54-0615	28	-	28	N	16.7	16.5	16.7				
Wilson Creek 54-648	64	N/A	64	N	N/A	N/A	N/A	N	N	N	

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/No.	Exist	3R Std	Prop	(Y or N)	Exist	3R Std	Prop	(Y or N)	(Y or N)	(Y/N)	#
Live Oak Canyon Rd OC/54-1291	85	-	85	N	18.8	16.0	18.8	N	N	N	
Wildwood Creek	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N	N	

4D. VEHICLE TRAFFIC DATA

Phase 1: PM 30.9/33.3

DESIGN DESIGNATION TRAFFIC DATA				
	Year 2011	Year 2015	Year 2035	Year 2055
	4MF Lanes Each Direction	4MF Lanes Each Direction	4MF+1HOV Lanes Each Direction	4MF+1HOV Lanes Each Direction
ADT	145,000	154,800	214,200	262,300
DHV	9,960	10,720	15,500	18,980
Directional Split (D/S)	53%	53%	54%	54%
%Truck in DHV (T)	6%	7%	9%	9%
%Truck in ADT	12%	12%	14%	14%

Phase 2: PM 33.3/R36.9

DESIGN DESIGNATION TRAFFIC DATA				
	Year 2011	Year 2015	Year 2035	Year 2055
	4MF Lanes Each Direction	4MF Lanes Each Direction	4MF+1HOV Lanes Each Direction	4MF+1HOV Lanes Each Direction
ADT	132,000	142,300	204,100	250,000
DHV	9,110	9,900	15,100	18,400
Directional Split (D/S)	53%	53%	54%	54%
%Truck in DHV (T)	7%	7%	10%	10%
%Truck in ADT	13%	13%	15%	15%

Phase 3: PM R36.9/R39.1

DESIGN DESIGNATION TRAFFIC DATA				
	Year 2011	Year 2015	Year 2035	Year 2055
	3MF Lanes Each Direction	3MF Lanes Each Direction	3MF+1HOV Lanes Each Direction	3MF+1HOV Lanes Each Direction
ADT	107,800	118,200	187,300	229,400
DHV	7,400	8,200	13,600	16,700
Directional Split (D/S)	53%	53%	53%	53%
%Truck in DHV (T)	8%	8%	10%	10%
%Truck in ADT	16%	16%	16%	16%

TRAFFIC INDEX (TI)

TRAFFIC INDICES ARE BASE ON THE CONSTRUCTION COMPLETION ACCEPTANCE (CCA) 2015				
Traffic Index (TI) Year	Inside Lanes		Outside Lanes	
	Mainline + 2Ft. of Shoulder	Shoulder	Mainline + 2Ft. of Shoulder	Shoulder
20-Year	13.5	8.5	15.5	10.0
20-Year (ESAL)	26,371,840	527,440	105,487,360	2,109,750
40-Year	15.0	9.5	17.5	11.0
40-Year (ESAL)	64,600,650	1,292,010	258,401,790	5,168,040

Note 1: Per Pavement Policy Bulletin, the maximum TI used in calculating pavement structural section for an inside lane shall not exceed 11.0 for 20 year design and 12.0 for 40 year design.

Note 2: Per Pavement Policy Bulletin, the maximum TI used in calculating pavement structural section for a shoulder shall not exceed 9.0 for 20 year and 40 year design.

Safety Field-Review: June 13, 2011

The accident data from the Traffic Accident Surveillance and Analysis System (TASAS) Table B for the mainline within the project limits is summarized in the following table.

ACTUAL AND AVERAGE ACCIDENT RATES ON I-10 (Per Million Vehicle Miles) (05/01/07 - 04/30/10)						
	Actual Rates			Statewide Average		
I-10 30.9/R39.1	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
	.004	.23	.58	.011	.33	1.06

The accident data, per the Traffic Accident Surveillance and Analysis System (TASAS), for the period from May 1, 2007 through April 30, 2010 indicates:

- The total actual accident rate on I-10 within the project limits was less than the average rate for a similar type facility.

- A total of 660 accidents were reported within the project limits. Four of these accidents involved fatalities, while 254 accidents involved injuries.

- The primary accident factors are as follows: speeding (38.6%), other violations (25.3%), improper turn (20.9%), alcohol influence (8.5%), other than driver (4.7%), follow too close (1.4%), unknown (0.6%).

- The types of accidents are as follows: rear-end (41.8%), sideswipe (25.9%), hit object (23.6%), overturn (5.0%), other (1.8%) broadside (1.4%), auto-pedestrian (0.3%), head-on (0.1%), not stated (0.1%).

Corrective Strategy:

The Traffic Operation conducted a field review on June 13, 2011 and recommended the following safety improvements.

- Upgrade guardrail end treatments and approach railing within the project limits as necessary.
- Remove or protect trees and light poles within the clear recovery zone.

4E. MATERIALS

The Preliminary Materials Report (PMR) was completed on September 1, 2011 outlining pavement recommendations. In consultation with the HQ Office of Pavement Engineering, the District agreed to use a different pavement recommendation than what was included in the PMR. The recommendation provided by HQ Office of Pavement Engineering varied from the PMR in that some of the components were thinner. Typical cross-section for this project was prepared based on the HQ recommendations and are shown in Attachment B.

5. CORRIDOR AND SYSTEM COORDINATION

The primary purpose of I-10 is to provide for the safe and efficient, interstate and interregional movement of people and goods. The route also serves as a major east/west urban corridor and commuter route between Los Angeles and the counties of San Bernardino and Riverside. Rural areas in eastern Riverside County are connected to the urban centers to the west via I-10. The Route Concept Report for Interstate 10 dated March 2000, shows three mixed-flow lanes and one High Occupancy Vehicle (HOV) lane designated as the ultimate transportation corridor for Segment 6,7, and 8 (PM 30.9/R39.1) through the year 2015. The proposed project is consistent with statewide, regional and local planning goals

and will be coordinated, as necessary and in a timely manner, with impacted governmental regulatory and private agencies in the area to ensure consistency with specific local goals and objectives.

The following projects are proposed or under construction within the project limits:

EA	PROJECT LIMITS	SCOPE OF WORK	STATUS
ID: 0800000516 EA: 0N240	PM R37.4/R38.3	Install outer concrete barrier	PS&E
ID: 0800000114 EA: 0F150	PM 33.3/R36.9	Construct 1 WB mixed flow lane addition	Under Construction
ID: 0800020051 EA: 0P160	PM 9.1/R36.9	Treat decks with Methacrylate, replace joint seals	RTL on: 4/19/11
ID: 0800000040 EA: 0C250	PM 8.2/33.4	Widen from 8 to 10 lanes (HOV) & add auxiliary lane	PA&ED

6. ALTERNATIVES

6A. REHABILITATION STRATEGY:

The project being addressed in this Supplemental PSSR, representing a change in scope from the project addressed in the April 2007 CAPM (to replace deteriorated slabs), consists of roadway rehabilitation under pavement resurfacing and restoration to provide an expected life of at least twenty years of service life to the pavement (instead of the original objective of only five years). As previously stated, due to possible funding constraints, the project is being planned to be constructed in up to three (3) phases, if necessary, however the project will be constructed in fewer phases or all at once if required funding is secured.

The scope of work currently planned for each of the three respective, potential construction phases of this project includes:

Phase 1: PM 30.9/33.3

- Remove and replace the existing PCCP in lanes #3 and #4 with 1.15' JPCP, 0.10' HMA-A, 0.35' LCB, 0.70' AS.
- Saw cut and remove 6" lane #2 adjacent to lane #3 to provide clean isolation joint and lateral support for lane #3 (a truck lane).
- Preserve the outside shoulders by milling 0.15 feet and placing 0.15 feet of Hot Rubber Mixed Asphalt Concrete Pavement. Remove first 2' of shoulder next to lane #4 and construct concrete structure to match adjacent lane.
- Rehabilitate all ramps by milling 0.20 feet and placing 0.20 feet of Hot Mixed Asphalt Concrete Pavement.
- Reconstruct concrete ramp termini at Cypress Avenue westbound off-ramp.

JPCP is the preferred rehabilitation strategy for Phase 1 because it is consistent with existing pavement and other options like asphalt overlay are not feasible due to the high number of soundwalls which would need to be reconstructed. The capital cost estimate for the currently defined possible phase 1 of this project, is estimated at $22,261,000. A life-cycle cost analysis was not performed due to the absence of viable alternatives.

Phase 2: PM 33.3/R36.9

- From PM 33.3 to PM 35.3, remove and replace the existing PCCP in lanes #3 and #4 with JPCP in both directions. Remove additional 6" slab adjacent to lane replacement to provide clean longitudinal joint. Drill and bend tie bars between new pavement and exist concrete pavement to the outside.
- From PM 35.3 to PM 36.9, remove and replace the existing PCCP in lanes #2 and #3 with JPCP in the westbound direction. Remove additional 6" slab adjacent to lane replacement to provide clean longitudinal joint. Drill and bend tie bars between new pavement and exist concrete pavement to the outside.
- From PM 35.0 to PM R36.9, replace the existing PCCP in lane #3 with JPCP in the eastbound direction. Remove additional 6" slab adjacent to lane replacement to provide clean longitudinal joint. Drill and bend tie bars between new pavement and exist concrete pavement to the outside.
- Rehabilitate all ramps by milling 0.20 feet and placing 0.20 feet of Rubber Hot Mixed Asphalt Concrete Pavement within phase limits.
- Reconstruct concrete ramp termini at Wabash Avenue westbound off-ramp.

The pavement structure recommended for both phase 1 and 2 are as follows:

Lane #3 and #4	Lane #2
1.15' JPCP	0.85' JPCP
0.10' HMA-A Bond Breaker	0.10' HMA-A Bond Breaker
0.35' Lean Concrete Base	0.35' Lean Concrete Base
0.70 Aggregate Base	0.70 Aggregate Base
2.30' Total	2.0' Total

JPCP lane replacement is the preferred rehabilitation strategy for phase 2 because it has lowest life-cycle cost. This is the preferred strategy but long term lane closures would be required as the District's Office of DTM requires a minimum of three lanes to be open at any one time. The capital cost estimate for the currently defined possible phase 2 of this project, is estimated at $27,052,000. Life-cycle cost is $23,358,000.

Phase 3: PM R36.9/R39.1

- Crack, seat the existing pavement and overlay entire roadbed in both directions.
- Rehabilitate all ramps by milling 0.20 feet and placing 0.20 feet of Rubber Hot Mixed Asphalt Concrete Pavement within phase limits (except Live Oak Canyon Road ramps).

- Raise MBGR, guardrail end treatments, dikes, and drainage facilities to match new road profile.
- Upgrade MBGR, guardrail end treatments, dikes, and drainage facilities to current standards within the phase limits as necessary.
- Reconstruct embankment to match new profile.
- Replace thrie beam median barrier to match new road profile.

The structure sections recommended for phase 3 are as follow:

0.1' RHMA-G
0.5' HMA-C
Geosynthetic Pavement Interlayer
0.1' HMA (Leveling Course)
0.7' Total

Implementation of this strategy would result in raising the profile grade by 0.7 feet. The capital cost estimate for the currently defined possible phase 3 of this project, is estimated at $14,788,000. Life-cycle cost is $16,110,000.

6B. DESIGN EXCEPTIONS:

Some design features on this project deviate from the Mandatory design standards as indicated in section 4A and 4C. Mandatory Design Exception fact sheet will not be required as Safety Screening determined this project to be a 2R project per the guidance in Design Information Bulletin Number 79 (See Attachment G).

6C. ENVIRONMENTAL COMPLIANCE:

Caltrans is the California Environmental Quality Act (CEQA) Lead Agency and the National Environmental Policy Act (NEPA) Lead Agency for this project.

As owner-operator of the State Highway System (SHS), Caltrans is the CEQA Lead Agency for all improvement projects on the SHS. Effective June 7, 2007, Caltrans was assigned environmental review and consultation responsibilities under NEPA pursuant to 23 U.S.C. 326. Under the Section 6004 Categorical Exclusion (CE) Assignment Program MOU, Caltrans has assumed responsibility for determining CEs for activities listed under 23 CFR 771.117(c), the activities listed as examples under 23 CFR 771.117(d), and the actions listed in Appendix A of the MOU. In addition to those projects where Caltrans has assumed CE responsibility, Caltrans has also assumed FHWA's responsibilities for environmental review and consultation under other federal environmental laws. On June 7, 2010, Caltrans and FHWA renewed the Section 6004 Memorandum of Understanding (MOU) under which FHWA continues to assign FHWA's Federal authority and responsibility for determining whether certain projects are categorically excluded from preparation of an environmental assessment or an environmental impact statement under the National Environmental Policy Act (NEPA).

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 326.

In compliance with CEQA, this project has been determined to be eligible for a Categorical Exemption (CE), Class 1c, under Title 14, Division 6, Chapter 3, Section 21084 of the Public Resources Code (PRC). In compliance with NEPA, this project has been determined to be eligible for a Section 6004 Categorical Exclusion, 23 CFR 771.117(d): activity (d) (1), under Chapter 3 of Title 23, United States Code, Section 326 and the Section 6004 Memorandum of Understanding (MOU) executed between the Federal Highway Administration (FHWA) and the Department.

The Department's Categorical Exemption/Categorical Exclusion (CE/CE) Determination Form was utilized to document compliance with CEQA and NEPA requirements. The original Determination Form for this project was signature approved on August 1, 2007. Due to the change in the scope of work for this project, as being addressed by this PSSR, an Environmental Re-Evaluation was required and completed, resulting in a determination that a new CE/6004 CE needed to be issued. The new Determination Form for this project was signature approved on September 1, 2011.

If the scope of work (including utility relocation requirements—if any) or limits for this project change again prior to completion of final design, or at any time during construction, performance of an Environmental Re-Evaluation will be required to determine if the September 1, 2011 CE/6004 CE signature approved for this project remains valid. An Environmental Certification will be required at the end of the Plans, Specifications, and Estimates (PS&E) phase, and a Certificate of Compliance will be required following completion of construction of the project (see Attachment F).

6D. HAZARDOUS WASTE DISPOSAL SITE REQUIRED? IF YES, WHERE ARE SITES?

Based on the updated Initial Site Assessment completed on July 28, 2011 this project has low risk potential for Hazardous Waste involvement (see Attachment E).

6E. OTHER AGENCIES INVOLVED (PERMITS/APPROVALS FROM FISH & GAME, CORPS OF ENGINEERS, COASTAL COMMISSION, ETC.):

It is anticipated that the following permits will be required for this project:

- Department's Statewide National Pollutant Discharge Elimination System (NPDES).
- Department's Statewide Storm Water Management Plan (SWMP).

6F. MATERIALS AND OR DISPOSAL SITE NEEDS AND AVAILABILITY?

The contractor will be responsible for disposing of materials removed from the roadway. Materials are readily available from commercial plants near or within the project limits.

6G. HIGHWAY PLANTING AND IRRIGATION:

Highway planting and irrigation are not included in the scope of this project.

6H. ROADSIDE DESIGN AND MANAGEMENT:

Metal beam guardrail and dikes are some features that will be included in the scope of the project. In addition, all fixed objects such as light poles and trees within the clear recovery zone will be removed, relocated or protected to reduce severity of vehicular impact due to vehicles leaving the roadway.

6I. STORMWATER COMPLIANCE:

A short form Storm Water Data Report (SWDR) was prepared for this project to meet the demands of the Storm Water Management Plan (SWMP) in regards to controlling pollutant discharges and meeting permits requirements. The preliminary information in the SWDR prepared for the Project Initial Document (PID) phase will be reviewed, updated, and confirmed by the Office of Storm Water Quality, and if required, will be revised in the SWDR prepared during the later phases of the project (see Attachment I).

6J. RIGHT OF WAY ISSUES: INCLUDE UTILITY ISSUES IN GUIDANCE:

All work will be completed within the state right of way and no utility impacts have been identified (see Attachment G).

6K. RAILROAD INVOLVEMENT:

None.

6L. SALVAGING AND RECYCLING OF HARDWARE AND OTHER NON-RENEWABLE RESOURCES:

MBGR that is replaced will be salvaged.

6M. PROLONGED TEMPORARY RAMP CLOSURES:

Ramps will be closed for rehabilitation. It is proposed that one ramp will be closed at a time to provide as little impact as possible to the surrounding communities. If it is determined during Design that the ramp will be closed for more than 10 consecutive

days, a Ramp Closure Study will be performed, and if necessary, an Environmental Re-Evaluation. The results of either or both, including any changes or additional Avoidance, Minimization, and/or Mitigation Measures, will be incorporated and implemented as required during Design and Construction.

6N. RECYCLED MATERIALS:

Recycle of Asphalt Concrete (AC): Milled AC can be used as aggregate base.

6O. LOCAL AND REGIONAL INPUT:

The traveling public will be directly or indirectly impacted during the construction of this project. The Construction phase of this project is anticipated to result in some transportation delay impacts to those traveling to businesses and recreation locations in the Redlands area and beyond. The traveling public and emergency service providers will be informed about construction related delays on I-10 in accordance with the Transportation Management Plan (TMP) developed for the project during the Design phase. Use of alternative routes through the construction area may be among the component of the TMP (see Section 7A below).

6P. WHAT ARE THE CONSEQUENCES OF NOT DOING THIS ENTIRE PROJECT?

The roadway will continue to deteriorate due to high traffic and truck loads. This will increase maintenance costs and exposure of maintenance personnel to traffic dangers. The traveling public will continue to experience poor ride quality of the pavement.

6Q. LIST ALL REHABILITATION METHODS STUDIED, COST, REASONS NOT RECOMMENDED, ETC.:

Phase 1 – PM 30.9/33.3

Crack, seat and overlay with asphalt is not viable because soundwalls and other features would need to be raised or reconstructed.

Phase 2 – PM 33.3/R36.9

- **Crack, Seat and Overlay (CSO).** Per Caltrans policy, a Life- Cycle Cost Analysis was completed (see Attachment L). Two options, 20-year design life and 40-year design life pavement, were analyzed for a 55 year period using the computer software program, RealCost.
    - Option 1: 40-Year Lane Replacement, LCCA cost of $23,358,000.
    - Option 2: 20-Year Crack, Seat and Overlay, LCCA cost of $36,121,000.

Option 2 has been rejected due to higher life-cycle costs. As indicated above in phase 1, this strategy would require grade change in surface profile which will affect the existing features along the mainline within the project limits and require embankment reconstruction. Pavement would also need to be reconstructed at transitions at each end of the phase, and into and under bridges. The capital cost for this option is estimated at $31,333,000.

Phase 3 – PM R36.9/R39.1

- **Lane Replacement.** Per Caltrans policy, a Life- Cycle Cost Analysis Summary was completed (see Attachment L). Two options, 20-year design life and 40-year design life pavement, were analyzed for a 55 year period using the computer software program, RealCost.

    - Option 1: 40-Year Lane Replacement, LCCA cost of $24,558,000.
    - Option 2: 20-Year Crack, Seat and Overlay, LCCA cost of $16,110,000.

Option 1 has been rejected due to higher life-cycle costs. Implementation of this strategy will require paving 36 feet median, remove existing median thrie-beams and oleanders for approximately 2.2 miles to provide a temporary traffic detour during the length of construction as well as constructing concrete barrier in the median thus increase the project final cost. The capital cost for this phase is estimated at $31,526,000.

7. TRANSPORTATION MANAGEMENT

7A. TRANSPORTATION MANAGEMENT PLAN

A Transportation Management Plan (TMP) will be prepared during the design phase and the Preliminary TMP Data Sheet approved on August 25, 2011 is shown in Attachment H. Traffic staging during construction is a large element of this project as it impacts the traveling public, construction production rates, and both worker and public safety. Because I-10 is major commuter route, District's Office of DTM requires a minimum of three lanes to be open at any one time and night work may be required. All k-rail will have glare screen. The conceptual staging for this project is as follows.

Phase 1 – PM 30.9/33.3

The first order of work will be to restripe the existing lanes to shift traffic to the inside with no inside shoulder. As traffic is shifted, the lanes #3 and #4 can be replaced, tie bars placed between the #2 and #3 lanes, and outside shoulder will be cold planed behind k-rail. Finally, all lanes will be grooved. The number of working days is estimated at 250.

Phase 2 – PM 33.3/R36.9

The first order of work will be to restripe the existing lanes to shift traffic to the inside with no inside shoulder and to the westbound. As traffic is shifted, lane #3 from PM 33.3 to R36.9 and lane #4 from PM 33.3 to 35.5 in the eastbound direction can be replaced, tie bars placed adjacent to the lane replacement behind k-rail. Then, all lanes will be grooved. The second order of work will be to restripe to shift the traffic to the inside with no inside shoulder and to the eastbound, to provide three lanes open as the first order of work is completed. As traffic is shifted, lanes #3 and #4 from PM 33.3 to 35.0 and lanes #2 and #3 from PM 35.0 to R36.9 in the westbound direction can be replaced, tie bars placed adjacent to the lane replacement behind k-rail. Finally, all lanes will be grooved and median barrier will be reconstructed. Implementation of this phase would require using movable barrier to close traffic. The number of working days is estimated at 250.

Phase 3 – PM R36.9/R39.1

The first order of work will be to remove and reconstruct thrie beam median barrier and the embankment will be reconstructed behind k-rail. Then, the existing pavement of lanes #3, #2, # 1 will be cracked, seated and overlayed in sequence using 10- hour night closure (from 8PM to 6AM). The number of working days is estimated at 125.

7B. VEHICLE DETECTION SYSTEMS

Vehicle detection systems are being incorporated in this project. Actual locations will be determined during later phase.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

In compliance with CEQA, the revised scope of work for this project has been determined to be eligible for a Categorical Exemption (CE), Class 1c, under Title 14, Division 6, Chapter 3, Section 21084 of the Public Resources Code (PRC). In compliance with NEPA, this project has been determined to be eligible for a Section 6004 Categorical Exclusion, 23 CFR 771.117(d): activity (d) (1), under Chapter 3 of Title 23, United States Code, Section 326 and the Section 6004 Memorandum of Understanding (MOU) executed between the Federal Highway Administration (FHWA) and the Department. The Department's Categorical Exemption/Categorical Exclusion (CE/CE) Determination Form was utilized to document compliance with CEQA and NEPA requirements (see Attachment F).

Date Approved: 09/01/11

9. FUNDING/SCHEDULING

9A. COST ESTIMATE

PHASE 1: PM 30.9/33.3

	QUANTITY	UNIT	UNIT PRICE	UNIT COST
SECTION 1. Earthwork				
Remove Concrete (Structure)	52,968	Yd^3	$164	$8,686,721
Roadway Excavation	5,389	Yd^3	$20	$107,773
Imported Borrow	0	Yd^3	$0	$0
Develop Water Supply	1	LS	$30,000	$30,000
Clearing & Grubbing	1	LS	$30,000	$30,000
			SUBTOTAL COST	$8,854,494
SECTION 2. Pavement Structural Section				
Jointed Plain Concrete Pavement	26,484	CY	$140	$3,707,747
Hot Mix Asphalt (Type A)	4,663	TON	$83	$387,068
Rubberized Hot Mix Asphalt (Ramps)	8,802	TON	$83	$730,566
Lean Concrete Base	8,060	CY	$45	$362,714
Aggregate Sub-base (Class 2)	16,121	CY	$25	$403,016
			SUBTOTAL COST	$5,591,112
SECTION 3. Drainage				
Drainage Upgrade and Protection	1	LS	$50,000	$50,000
			SUBTOTAL COST	$50,000
SECTION 4. Specialty Items				
Concrete Barrier Type 60 GC MOD	0	FT	$94	$0
Construct Curb Ramps	2	EA	$7,000	$14,000
Remove Metal Beam Guard Railing	0	FT	$10	$0
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000
Water Pollution Control	1	LS	$50,000	$50,000
Water Pollution Control Maintenance Sharing	1	LS	$20,000	$20,000
Construction Site Management	1	LS	$250,000	$250,000
Erosion Control	1	LS	$100,000	$100,000
Metal Beam Guard Railing	0	LS	$80,000	$0
Resident Engineer Office Space.	1	LS	$100,000	$100,000
			SUBTOTAL COST	$564,000
SECTION 5. Traffic Items				
Traffic Items	1	LS	$1,000,000	$1,000,000

Traffic Control Systems	1	LS	$350,000	$350,000
Transportation Management Plan	1	LS	$308,240	$308,240
Temporary Crash Cushion	1	LS	$5,000	$5,000
Temporary Railing Barrier Type K	25,344	FT	$9	$238,234
			SUBTOTAL COST	$1,901,474
SECTION 6. Minor Items				
5% Subtotal Sections 1-5		LS		$ 848,054
SECTION 7. Roadway Mobilization				
10% Subtotal Sections 1-6		LS		$ 1,780,913
SECTION 8. Roadway Additions				
15% Subtotal Sections 1-6 (Contingencies)		LS		$ 2,671,370
TOTAL COST: Phase 1 of Project (as currently planned)				**$ 22,261,417**
			Ground-Off to	**$22,261,000**

PHASE 2: PM 33.3/R36.9

	QUANTITY	UNIT	UNIT PRICE	UNIT COST
SECTION 1. Earthwork				
Remove Concrete (Structure)	69,086	Yd^3	$164	$11,330,083
Roadway Excavation	1,387	Yd^3	$20	$27,733
Imported Borrow	0	Yd^3	$0	$ -
Develop Water Supply	1	LS	$30,000	$30,000
Clearing & Grubbing	1	LS	$30,000	$30,000
Minor Roadway Excavation and Embankment	0	Yd^3	$0	$ -
			SUBTOTAL COST	**$11,417,816**
SECTION 2. Structural Section				
Jointed Plain Concrete Pavement	34,543	CY	$140	$4,836,012
Hot Mix Asphalt (Type A)	8,891	TON	$83	$737,916
Rubberized Hot Mix Asphalt (Ramps)	2808	TON	$83	$233,064
Lean Concrete Base	10,513	CY	$45	$473,088
Aggregate Sub-base (Class 2)	21,026	CY	$25	$525,654
			SUBTOTAL COST	**$ 6,572,670**
SECTION 3. Drainage				
Drainage Upgrade and Protection	1	LS	$50,000	$ 50,000
			SUBTOTAL COST	$ 50,000
SECTION 4. Specialty Items				
Concrete Barrier Type 60 GC MOD	0	FT	$94	$ -

Construct Curb Ramps	0	EA	$7,000	$ -
Remove Metal Beam Guard Railing	0	FT	$10	$ -
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000
Water Polution Control	1	LS	$50,000	$ 50,000
Water Polution Control Maintanance Sharing	1	LS	$20,000	$ 20,000
Construction Site Mangement	1	LS	$250,000	$ 250,000
Erosion Control	1	LS	$100,000	$ 100,000
Metal Beam Guard Railling	0	LS	$80,000	$ -
Resident Engineer Office Space.	1	LS	$100,000	$ 100,000
			SUBTOTAL COST	**$ 550,000**
SECTION 5. Traffic Items				
Traffic Items	1	LS	$1,000,000	$ 1,000,000
Traffic Control Systems	1	LS	$350,000	$ 350,000
Traffic Management Plan	1	LS	$308,240	$ 308,240
Temporary Crash Cushion	1	LS	$5,000	$ 5,000
Temporary Railling Barrier Type K	38,016	FT	$9	$ 357,350
			SUBTOTAL COST	**$ 2,020,590**
SECTION 6. Minor Items				
5% Subtotal Sections 1-5		LS		$1,030,554
SECTION 7. Roadway Mobilization				
10% Subtotal Sections 1-6		LS		$2,164,163
SECTION 8. Roadway Additions				
15% Subtotal Sections 1-6 (Contingencies)		LS		$3,246,245
TOTAL COST: Phase 2 of Project (as currently planned)				**$27,052,038**
			Ground-Off to	**$27,052,000**

PHASE 3: PM R36.9/R39.1

	QUANTITY	UNIT	UNIT PRICE	UNIT COST
SECTION 1. Earthwork				
Crack Existing Concrete Pavement	165,205	Yd^2	$3	$413,013
Roadway Excavation	1,547	Yd^3	$20	$30,933
Imported Borrow	0	Yd^3	$0	$0
Develop Water Supply	1	LS	$30,000	$30,000
Clearing & Grubbing	1	LS	$30,000	$30,000
Minor Roadway Excavation and Embankment	0	Yd^3	$0	$0
			SUBTOTAL COST	$503,946

SECTION 2. Structural Section				
Rubberized Hot Mix Asphalt	11,151	TON	$83	$925,533
Pavement Reinforced Fabric	165,205	Yd^2	$3	$495,616
Hot Mix Asphalt (Type C)	55,757	TON	$83	$4,627,914
Geosynthetic Pavement Interlayer	165,205	Yd^2	$1	$165,205
Hot Mix Asphalt	11,151	TON	$83	$925,533
Rubberized Hot Mix Asphalt (Ramps)	3,132	TON	$83	$259,956
			SUBTOTAL COST	$7,399,717
SECTION 3. Drainage				
Drainage Upgrade and Protection	1	LS	$150,000	$150,000
			SUBTOTAL COST	$150,000
SECTION 4. Specialty Items				
Construct Metal Beam Guard Rail	23,232	FT	$20	$464,640
Reconstruct Thrie Beam Barrier (Median)	23,232	FT	$12	$278,784
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000
Water Pollution Control	1	LS	$50,000	$50,000
Water Pollution Control Maintenance Sharing	1	LS	$20,000	$20,000
Construction Site Management	1	LS	$250,000	$250,000
Construct Curb Ramps	8	EA	$7,000	$56,000
Construct AC Dike	23,232	FT	$8	$174,240
Erosion Control	1	LS	$100,000	$100,000
Resident Engineer Office Space.	1	LS	$100,000	$100,000
			SUBTOTAL COST	$1,523,664
SECTION 5. Traffic Items				
Traffic Items	1	LS	$1,000,000	$1,000,000
Traffic Control Systems	1	LS	$350,000	$350,000
Traffic Management Plan	1	LS	$116,400	$116,400
Temporary Crash Cushion	1	LS	$5,000	$5,000
Temporary Railing Barrier Type K	23,232	FT	$9	$218,381
			SUBTOTAL COST	$1,689,781
SECTION 6. Minor Items				
5% Subtotal Sections 1-5		LS		$555,095
SECTION 7. Roadway Mobilization				
10% Subtotal Sections 1-6		LS		$1,165,700
SECTION 8. Roadway Additions				
15% Subtotal Sections 1-6 (Contingencies)		LS		$1,748,550
TOTAL COST: Phase 2 of Project (as currently planned)				**$14,788,080**
			Ground-Off to	**$14,788,000**

9B. PROJECT SUPPORT:

Phase 1 – EA 0K291

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	0	0	8.7	0.4	1.3	0	14.9	0	25.2
Estimated PS $'s	0	0	1,521	72	220	0	2,623	0	4,436
Estimated PYE $'s ($1000's)	0	0	0	0	0	0	0	0	0
Total $'s	0	0	1,521	72	220	0	2,623	0	4,436

Phase 2 – EA 0K292

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	0	0	10.5	0.4	1.5	0	18.1	0	30.6
Estimated PS $'s	0	0	1,847	73	268	0	3,185	0	5,373
Estimated PYE $'s ($1000's)	0	0	0	0	0	0	0	0	0
Total $'s	0	0	1,847	73	268	0	3,185	0	5,375

Phase 3 – EA 0K293

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	0	0	5.7	0.4	0.8	0	9.8	0	16.7
Estimated PS $'s	0	0	1,000	72	145	0	1,725	0	2,942
Estimated PYE $'s ($1000's)	0	0	0	0	0	0	0	0	0
Total $'s	0	0	1,000	72	145	0	1,725	0	2,942

9C. PROJECT SCHEDULE:

Milestones	Delivery Date (Month, Day, Year)
Begin Environmental	N/A
Notice of Intent (NOI)	N/A
Circulate DED	N/A
PA & ED	9/1/2011
Regular Right of way	9/1/2012
Project PS&E	9/17/2013
Right of way Certification	9/3/2013
Ready to List	1/30/2014
Approve Contract	8/14/2014
Contract Acceptance	4/14/2016
End Project	4/13/2017

10. FEDERAL COORDINATION

Caltrans' Federal Highway Administration Liaison Engineer has not reviewed this Supplemental PSSR. Per Federal Transportation Act, this project is eligible for federal-aid funding and is considered to be STATE-AUTHORIZED under current FHWA-Caltrans Stewardship Agreements.

11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

See Attachment M Date 6/21/2011

12. PROJECT REVIEWED BY:

Field Review Juan Amezcua, Minh Tran, Greg Ramirez Date 7/6/11

District Maintenance Mike Ristic Date 8/25/11

HQ Office of Pavement Engineering Bill Farnbach Date 9/2/11

HQ Program Advisor, Pavement Leo Mahserelli Date 8/25/11

13. ATTACHMENTS

A. Title Sheet
B. Aerial Map, Typical & Stage Construction Cross Sections
C. Cost Estimate
D. Pavement Condition Survey Inventory Data
E. ISA Checklist
F. Categorical Exemption/Exclusion Determination
G. Right of Way Data Sheet
H. Transportation Management Plan Estimate Sheet & Lane Closure Chart
I. Storm Water Data Report (Signature Sheet)
J. 2R Project Certification
K. Project Category Approval
L. Life Cycle Cost Analysis Summary
M. Scoping Team Field Review Attendance Roster

ATTACHMENT A

TITLE SHEET

INDEX OF PLANS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SAN BERNARDINO COUNTY
IN/NEAR REDLANDS & CALIMESA
FROM JUNCTION STATE ROUTE 38/ORANGE STREET
TO SAN BERNARDINO/RIVERSIDE COUNTY LINE

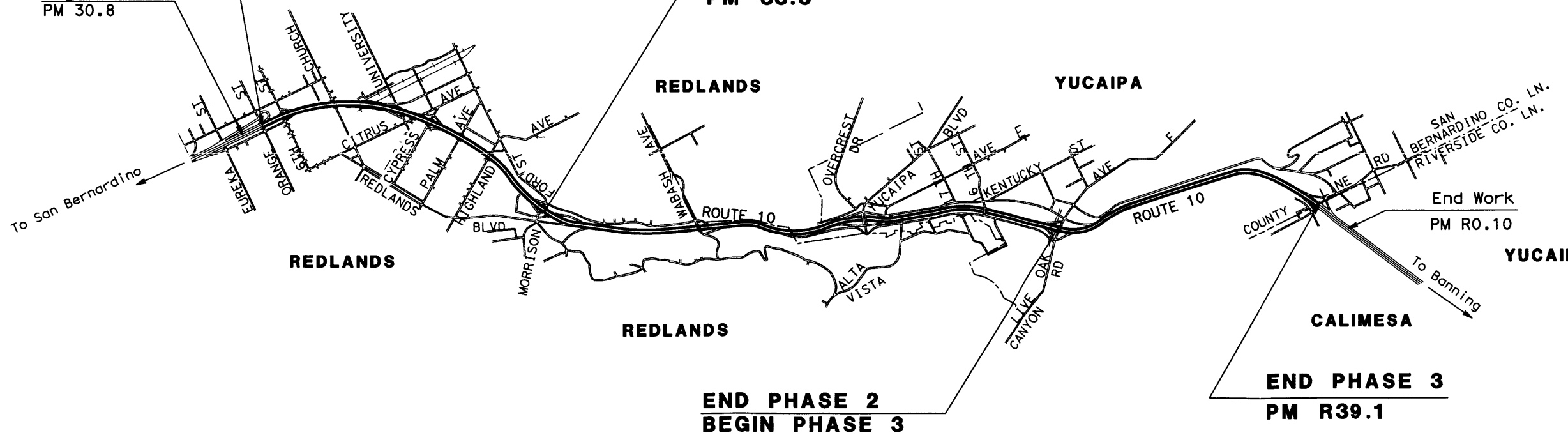
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Sbd	10	30.9/R39.1		

BEGIN PHASE 1
PM 30.9

Begin Work
PM 30.8

END PHASE 1
BEGIN PHASE 2
PM 33.3



END PHASE 2
BEGIN PHASE 3
PM R36.9

END PHASE 3
PM R39.1

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

PROJECT MANAGER

DESIGN ENGINEER

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

CONTRACT No.	08-0K290K
PROJECT ID	0800020559

LAST REVISION 00-00-00
DATE PLOTTED => 08-SEP-2011
TIME PLOTTED => 14:34

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => DGN FILE => | UNIT 08804 | PROJECT NUMBER & PHASE 0800020559-K

ATTACHMENT B

AERIAL MAPS, TYPICAL & STAGE CONSTRUCTION CROSS SECTIONS


PM 35.0
690
700
710
720
730
740
750
760
770
780
790
PM 36.0
YUCAIPA BLVD OC
PM 35.5
16THE ST OC
PM 36.4
WILSON CREEK
PM R36.9
PM 36.9
800
810
820
830
840
850
860
870
880
890
900
10
PM 38.0
WILDWOOD CREEK
PM R38.5
LIVE OAK CANYON RD OC
PM 37.03
WILDWOOD REST AREA
PM 39.0
SAN BERNARDINO CO. LN.
RIVERSIDE CO. LN.
END PROJECT
PM R39.1
1" = 1,500'
PHASE 1 - PM 30.9/33.3
PHASE 2 - PM 33.3/R36.9
PHASE 3 - PM R36.9/R39.1


38
10
RTE 38-ORANGE ST
PM 30.9
PM 31.0
480
490
500
510
520
530
540
550
560
570
580
590
600
610
620
630
640
650
660
670
680
SIXTH ST UC
PM 31.01
CYPRESS AVE UC
PM 32.1
PM 32.0
UNIVERSITY ST UC
PM 31.8
PM 33.0
FORD ST UC
PM 33.1
FORD ST UC
PM 33.3
PM 34.0
WABASH AVE OC
PM 34.3
PM 35.0
BEGIN PROJECT
PM 30.9
1" = 1,500'
PHASE 1 - PM 30.9/33.3
PHASE 2 - PM 33.3/R36.9
PHASE 3 - PM R36.9/R39.1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	30.9/R39.1	1	2

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

ABBREVIATION:

HMA-A = HOT MIX ASPHALT (TYPE A)
HMA (LC) = HOT MIX ASPHALT LEVELING COURSE
JPCP = JOINTED PLAIN CONCRETE PAVEMENT
SAMI = STRESS ASORBING MEMBRANE INTERLAYER

2011 EXISTING - DESIGN DESIGNATION (I-10)

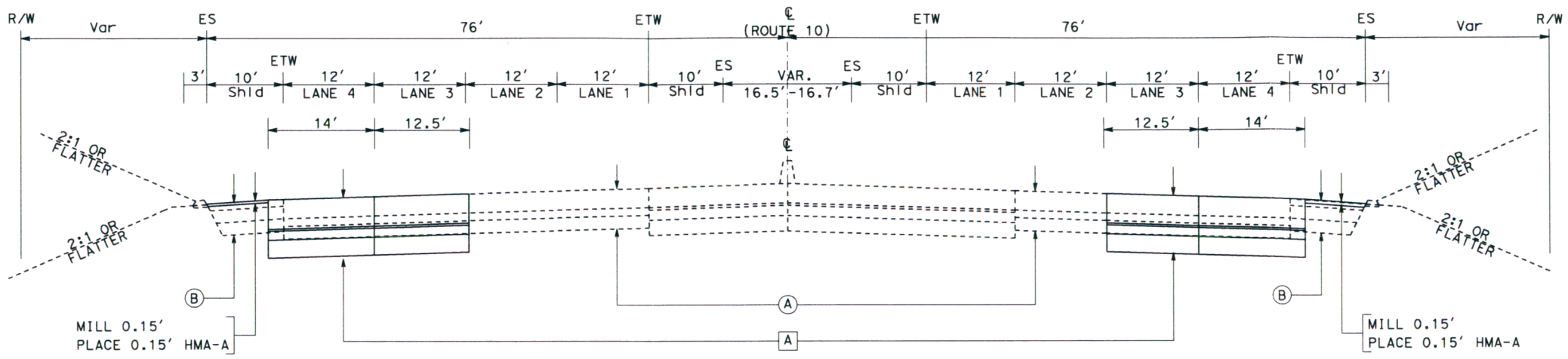
PHASE	PM	ADT	DHV	D/S	T%
1	30.9/33.3	145,000	9,960	53/47	6
2	33.3/R36.9	132,000	9,110	53/47	7
3	R36.9/R39.1	107,800	7,400	53/47	8

2055 FORECAST - DESIGN DESIGNATION (I-10)

PHASE	PM	ADT	DHV	D/S	T%
1	30.9/33.3	262,300	18,980	54/46	9
2	33.3/R36.9	250,000	18,400	54/46	10
3	R36.9/R39.1	229,400	16,700	53/47	10

STRUCTURE SECTIONS:

- A — 1.15′ JPCP; 0.10′ HMA-A; 0.35′ LCB; 0.70′ AS CLASS 2
- B — 0.25′ HMA-A
- C — 0.10′ RHMA-G; 0.50′ HMA-C; 0.10′ HMA (LC)
- D — 0.85′ JPCP; 0.10′ HMA-A; 0.35′ LCB; 0.70′ AS CLASS 2



WESTBOUND

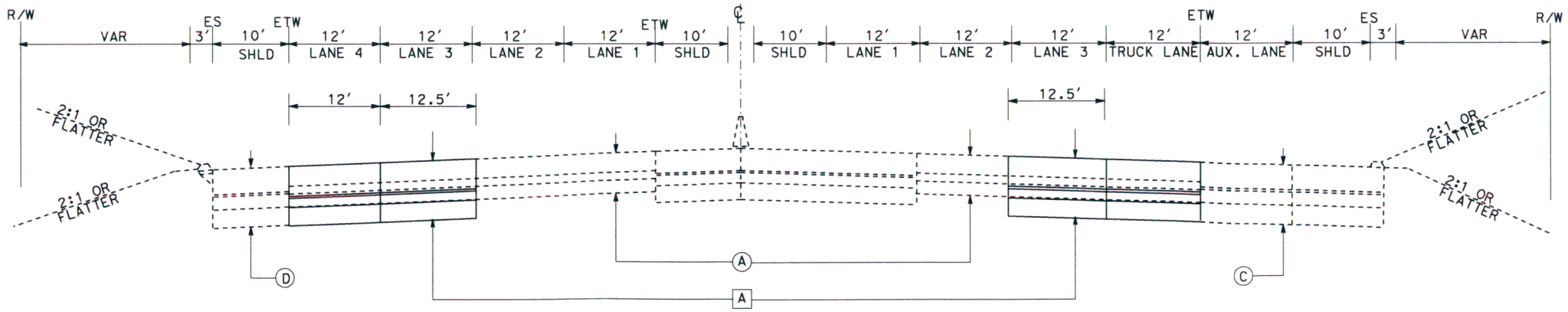
SBD I-10 - PHASE 1

FROM PM 30.9 TO PM 33.3

EASTBOUND

Exist STRUCTURE SECTIONS:

- (A) — 0.75′ PCC; 0.30′ CL A RMCTB; 0.50′ CL 2 AS
- (B) — 0.25′-0.45′ AC TYPE B; 0.50′-0.75′ CL 2 AB; 0.50′-0.65′ CL 2 AS
- (C) — 0.95′ PCC; 0.10′ AC TYPE A; 0.50′ LCB; 0.75′ CL 2 AS
- (D) — 1.10′ PCC; 0.10′ HMA-A; 0.50′ LCB; 0.70′ CL 2 AS
- (E) — 0.45′- 0.60′ AC TYPE B; 0.50′-0.95′ CL 2 AB; 0.75′- 1.05′ CL 2 AS



WESTBOUND

SBD I-10 - PHASE 2

FROM PM 33.3 TO PM 35.0

EASTBOUND

TYPICAL CROSS SECTIONS

NO SCALE

X-1

LAST REVISION 00-00-00 | DATE PLOTTED => 08-SEP-2011 | TIME PLOTTED => 14:53

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0800020559-K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	30.9/R39.1	2	3

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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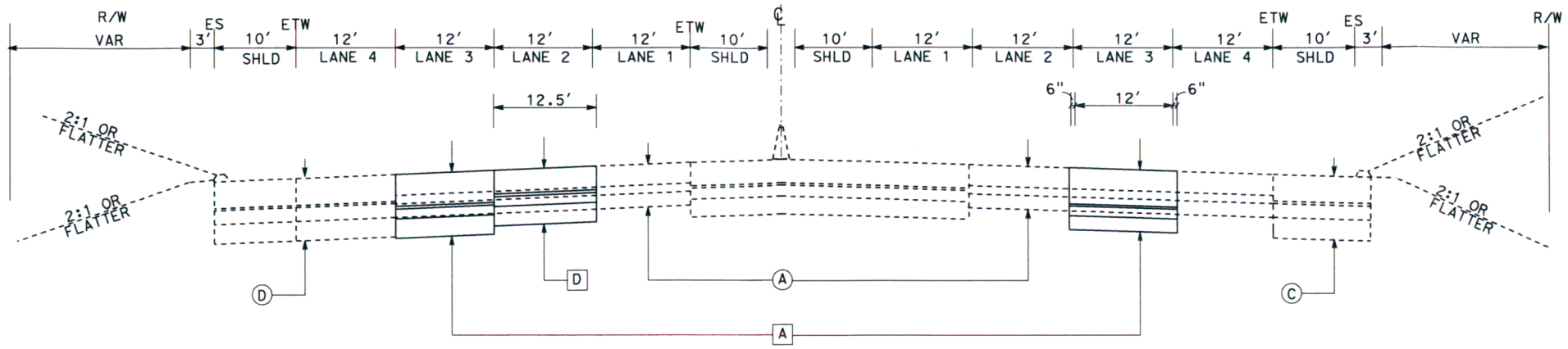
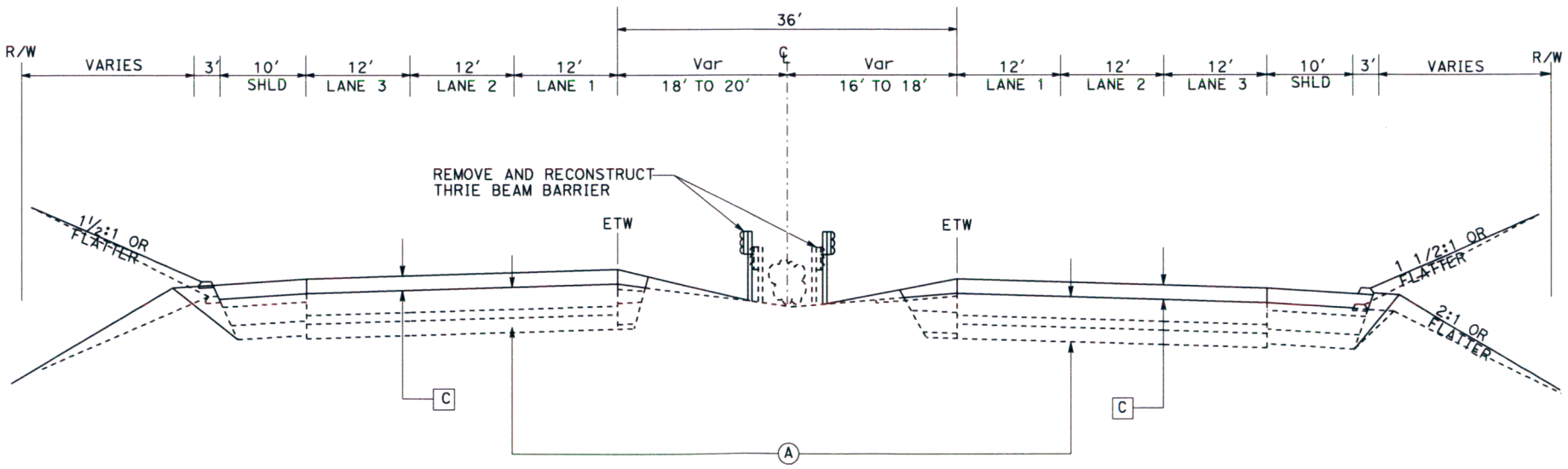


WESTBOUND

SBD I-10 - PHASE 2

FROM PM 35.0 TO PM R36.9

EASTBOUND



WESTBOUND

SBD I-10 - PHASE 3

FROM PM R36.9 TO PM R39.1

EASTBOUND

TYPICAL CROSS SECTIONS

NO SCALE

X-2

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

DATE PLOTTED => 09-SEP-2011

TIME PLOTTED => 10:38

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0800020559-K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	30.9/R39.1	3	3

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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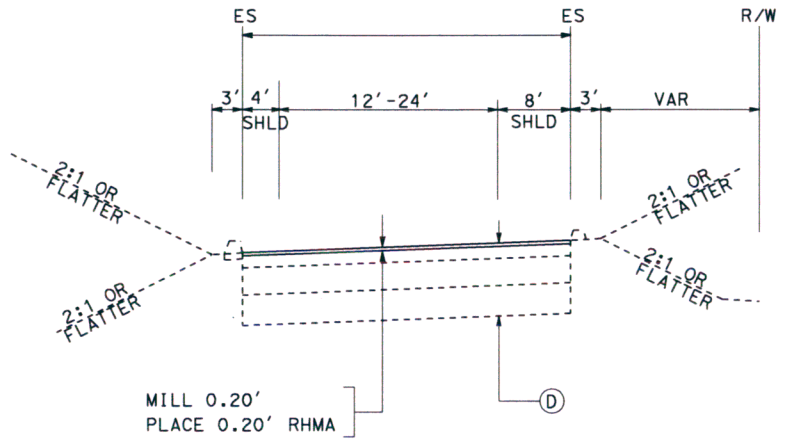
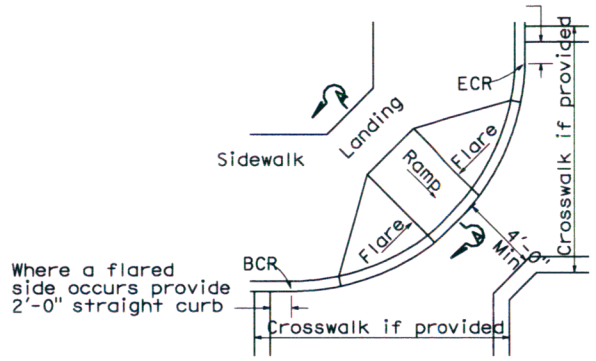


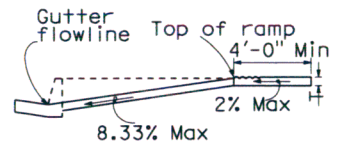
RAMPS

38/ORANGE ST WB ON
SIXTH ST EB ON AND WB OFF
UNIVERSITY ST EB OFF AND WB ON
CYPRESS AVE EB ON AND WB OFF
FORD ST EB/WB ON AND OFF
WABASH AVE EB ON AND WB OFF
YUCAIPA BLVD EB ON AND OFF
WILDWOOD REST AREA EB ON AND OFF
COUNTYLINE RD WB ON AND EB OFF



CURB RAMPS

FORD ST EB OFF-RAMP
FORD ST WB ON-RAMP
WABASH ST WB OFF-RAMP
COUNTYLINE RD EB OFF-RAMP
COUNTYLINE RD WB ON-RAMP



SECTION A-A

TYPICAL CROSS SECTIONS

NO SCALE

X-3

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LAST REVISION 00-00-00 | DATE PLOTTED => 08-SEP-2011 | TIME PLOTTED => 14:54

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	30.9/R39.1	1	2

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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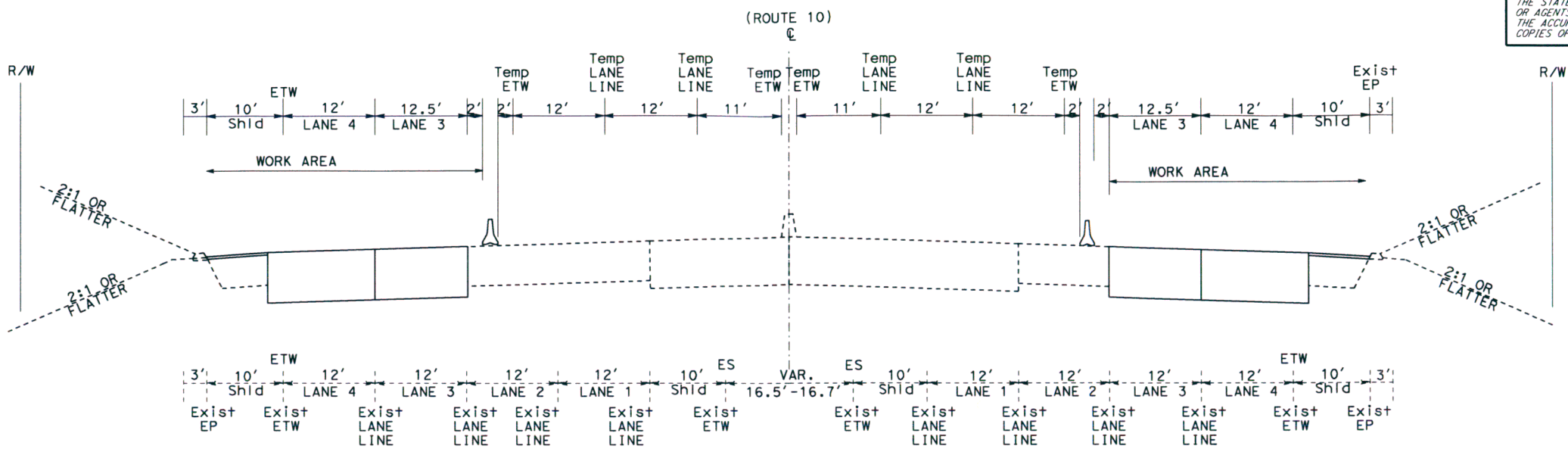
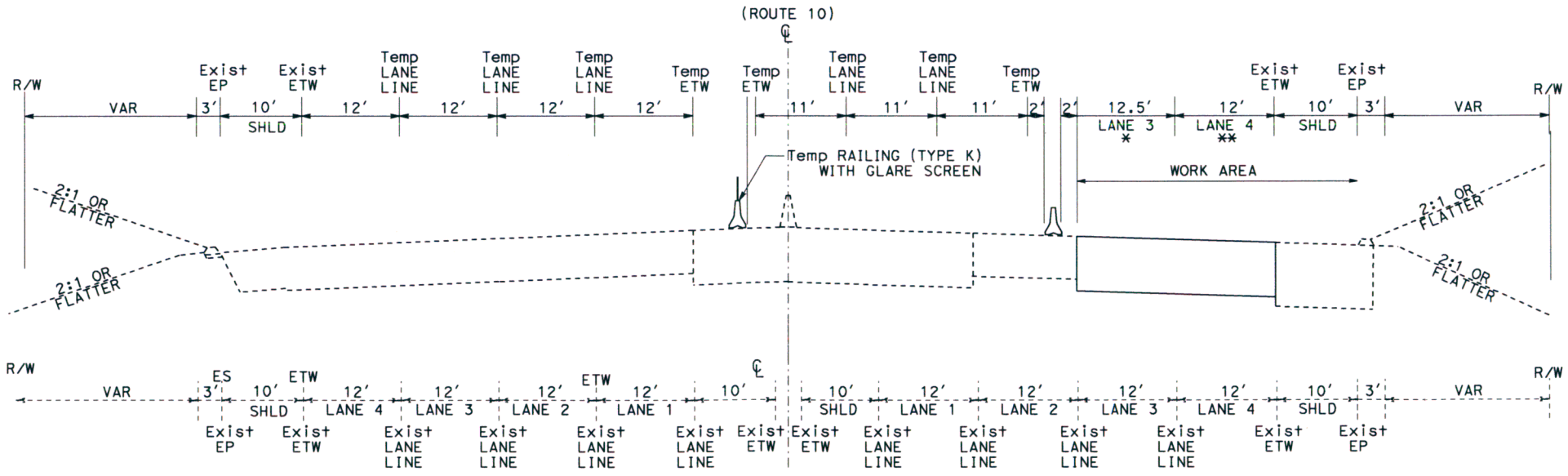


WESTBOUND

PHASE 1

FROM PM 30.9 TO PM 33.3

EASTBOUND



WESTBOUND

PHASE 2 - STAGE 1

* FROM PM 33.3 TO PM R36.9
** FROM PM 33.3 TO PM 35.0

EASTBOUND

STAGE CONSTRUCTION

NO SCALE **SC-1**

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	30.9/R39.1	2	2

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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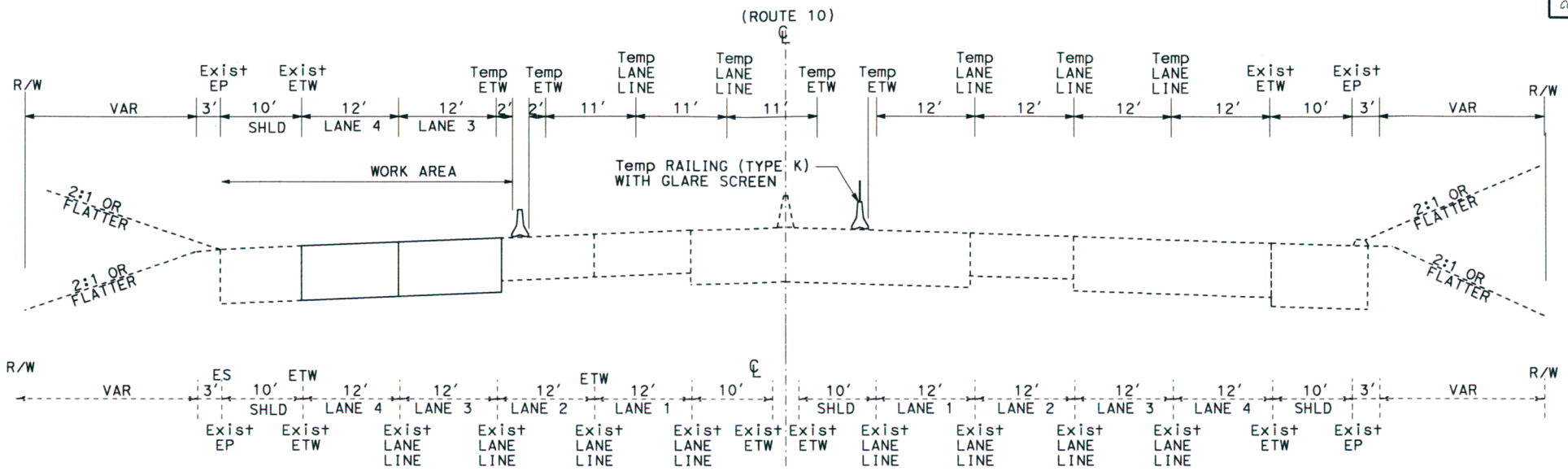
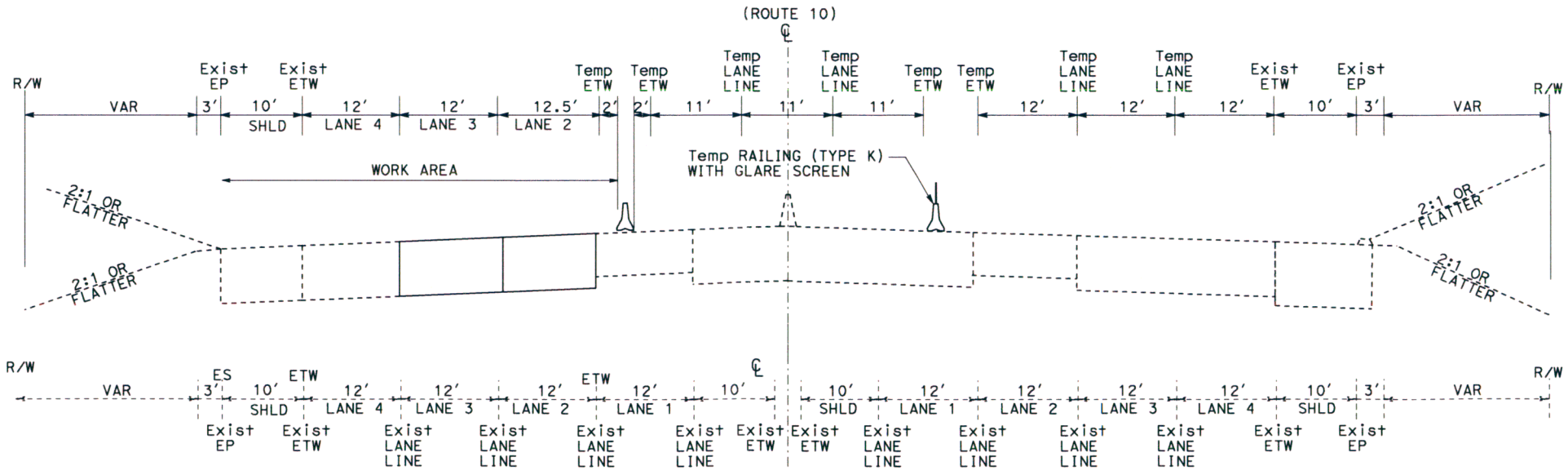


WESTBOUND EASTBOUND

PHASE 2 - STAGE 2

FROM PM 33.3 TO PM 35.0



WESTBOUND EASTBOUND

PHASE 2 - STAGE 2

FROM PM 35.0 TO R36.9

STAGE CONSTRUCTION

NO SCALE **SC-2**

REVISED BY | DATE REVISED

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FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

ATTACHMENT C

PRELIMINARY COST ESTIMATE

PRELIMINARY
PROJECT COST ESTIMATE SUMMARY

PHASE 1

TYPE OF ESTIMATE : SUPPLEMENTAL PROJECT SUMMARY STUDY REPORT

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

PROGRAM CODE:

PIP NUMBER:

PROJECT DESCRIPTION : Pavement Rehabilitation on I-10 Phase 1

LIMITS : From PM 30.9 to PM R33.3

PROPOSED IMPROVEMENTS : Lane Replacement, shoulder and ramps rehabilitation.

ROADWAY ITEMS		$22,261,000
STRUCTURE ITEMS		$0
SUBTOTAL CONSTRUCTION		$22,261,000
RIGHT OF WAY	(Current Value)	$0
SUBTOTAL PROJECT COST		$22,261,000
SUPPORT COST	(20% Subtotal)	$4,452,200
TOTAL PROJECT COST		**$26,713,200**
ROUND OFF TO:		**$26,713,000**

Prepared By:
Design Engineer Juan M. Amezcua Date: September 8, 2011

Reviewed By
Project Engineer Minh Van Tran Date: September 8, 2011

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

I. ROADWAY ITEMS	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 1. Earthwork					
Remove Concrete (Structure)	52,968	Yd^3	$164	$8,686,721	
Roadway Excavation	5,389	Yd^3	$20	$107,773	
Imported Borrow	0	Yd^3	$0	$0	
Develop Water Supply	1	LS	$30,000	$30,000	
Clearing & Grubbing	1	LS	$30,000	$30,000	
			Total Earthwork Section		**$8,854,494**
SECTION 2. Structural Section					
Jointed Plain Concrete Pavement	26,484	CY	$140	$3,707,747	
Hot Mix Asphalt (Type A)	4,663	TON	$83	$387,068	
Rubberized Hot Mix Asphalt	8,802	TON	$83	$730,566	
Lean Concrete Base	8,060	CY	$45	$362,714	
Aggregate Sub-base (Class 2)	16,121	CY	$25	$403,016	
			Total Structural Section		**$5,591,112**
SECTION 3. Drainage					
Drainage Upgrade and Protection	1	LS	$50,000	$50,000	
			Total Drainage Section		**$50,000**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 4. Specialty Items					
Concrete Barrier Type 60 GC MOD	0	FT	$94	$0	
Construct Curb Ramps	2	EA	$7,000	$14,000	
Remove Metal Beam Guard Railing	0	FT	$10	$0	
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000	
Water Polution Control	1	LS	$50,000	$50,000	
Water Polution Control Maintanance Sharing	1	LS	$20,000	$20,000	
Construction Site Mangement	1	LS	$250,000	$250,000	
Erosion Control	1	LS	$100,000	$100,000	
Metal Beam Guard Railling	0	LS	$80,000	$0	
Resident Engineer Office Space.	1	LS	$100,000	$100,000	
			Total Specialty Items		**$564,000**
SECTION 5. Traffic Items					
Traffic Items	1	LS	$1,000,000	$1,000,000	
Temporary Crash Cushion	1	LS	$5,000	$5,000	
Traffic Control Systems	1	LS	$350,000	$350,000	
Temporary Railling Barrier Type K	25,344	FT	$9	$238,234	
Transportation Management Plan	1	LS	$308,240	$308,240	
			Total Traffic Items		**$1,901,474**
			SUBTOTAL SECTIONS 1-5		**$16,961,080**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

					UNIT COST	SECTION COST
SECTION 6. Minor Items						
Subtotal Sections 1-5		$16,961,080	x	5%	$848,054	
			TOTAL MINOR ITEMS			$848,054
SECTION 7. Roadway Mobilization						
Subtotal Sections 1-5		$16,961,080				
Minor Items		$848,054				
	SUM	$17,809,134	x	10%	$1,780,913	
			TOTAL ROADWAY MOBILIZATION			$1,780,913
SECTION 8. Roadway Additions						
Supplemental						
Subtotal Sections 1-5		$16,961,080				
Minor Items		$848,054				
	SUM	$17,809,134	x	5%	$890,457	
Contingencies						
Subtotal Sections 1-5		$16,961,080				
Minor Items		$848,054				
	SUM	$17,809,134	x	10%	$1,780,913	
			TOTAL ROADWAY ADDITIONALS			**$2,671,370**
			TOTAL ROADWAY ITEMS **(Total of Sections 1-8)**			$22,261,417
			ROUND OFF TO :			**$22,261,000**

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488
Date: 7/21/2011

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

II. STRUCTURES ITEMS

The estimated contruction costs included 10% time related overhead, 10% mobilization and 25% contingencies.

Bridge Name	Bridge No.	Scope	Type	Cost

TOTAL COST FOR STRUCTURE $0

TOTAL STRUCTURES ITEMS $0

ROUND OFF TO : $0

Estimate Prepared By : Juan M. Amezcua

Phone # : 909-383-6488

Date : 7/21/2011

SBd-010-PM 30.9/R33.3
08-804-EA 0K290K

III. RIGHT OF WAY

Right of Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Value	Escalated Rate	Escalated Value
Acquisition, including Excess Lands, Damages and Goodwill			
Utility Relocation (State share)			
Clearance/Demolition			
Project Permit Fees			
Title and Escrow Fees			
Condemnation Costs			
TOTAL RIGHT OF WAY (CURRENT VALUE) :	**$0**		
TOTAL ESCALATED VALUE :			**$0**

ROUND OFF TO :	**$0**

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488

Date: 07/21/11

PRELIMINARY
PROJECT COST ESTIMATE SUMMARY

PHASE 2

TYPE OF ESTIMATE : SUPPLEMENTAL PROJECT SUMMARY STUDY REPORT

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

PROGRAM CODE:

PIP NUMBER:

PROJECT DESCRIPTION : Pavement Rehabilitation on I-10 Phase 2

LIMITS : From PM 33.3 to PM R36.9

PROPOSED IMPROVEMENTS : Lane Replacement, shoulder and ramps rehabilitation.

ROADWAY ITEMS		$27,052,000
STRUCTURE ITEMS		$0
SUBTOTAL CONSTRUCTION		$27,052,000
RIGHT OF WAY	(Current Value)	$0
SUBTOTAL PROJECT COST		$27,052,000
SUPPORT COST	(20% Subtotal)	$5,410,400
TOTAL PROJECT COST		**$32,462,400**
ROUND OFF TO:		**$32,462,000**

Prepared By:
Design Engineer Juan M. Amezcua Date: September 8, 2011

Reviewed By
Project Engineer Minh Van Tran Date: September 8, 2011

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

I. ROADWAY ITEMS	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 1. Earthwork					
Remove Concrete (Structure)	69,086	Yd^3	$164	$11,330,083	
Roadway Excavation	1,387	Yd^3	$20	$27,733	
Imported Borrow	0	Yd^3	$0	$0	
Develop Water Supply	1	LS	$30,000	$30,000	
Clearing & Grubbing	1	LS	$30,000	$30,000	
Minor Roadway Excavation and Embankment	0	Yd^3	$0	$0	
			Total Earthwork Section		**$11,417,816**
SECTION 2. Structural Section					
Jointed Plain Concrete Pavement	34,543	CY	$140	$4,836,012	
Hot Mix Asphalt (Type A)	6,083	TON	$83	$504,852	
Rubberized Hot Mix Asphalt (Ramps)	2,808	TON	$83	$233,064	
Lean Concrete Base	10,513	CY	$45	$473,088	
Aggregate Sub-base (Class 2)	21,026	CY	$25	$525,654	
			Total Structural Section		**$6,572,670**
SECTION 3. Drainage					
Drainage Upgrade and Protection	1	LS	$50,000	$50,000	
			Total Drainage Section		**$50,000**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 4. Specialty Items					
Concrete Barrier Type 60 GC MOD	0	FT	$94	$0	
Construct Curb Ramps	0	EA	$7,000	$0	
Remove Metal Beam Guard Railing	0	FT	$10	$0	
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000	
Water Polution Control	1	LS	$50,000	$50,000	
Water Polution Control Maintanance Sharing	1	LS	$20,000	$20,000	
Construction Site Mangement	1	LS	$250,000	$250,000	
Erosion Control	1	LS	$100,000	$100,000	
Metal Beam Guard Railling	0	LS	$80,000	$0	
Resident Engineer Office Space.	1	LS	$100,000	$100,000	
			Total Specialty Items		**$550,000**
SECTION 5. Traffic Items					
Traffic Items	1	LS	$1,000,000	$1,000,000	
Temporary Railling Barrier Type K	38,016	FT	$9	$357,350	
Temporary Crash Cushion	1	LS	$5,000	$5,000	
Traffic Control Systems	1	LS	$350,000	$350,000	
Traffic Management Plan	1	LS	$308,240	$308,240	
			Total Traffic Items		**$2,020,590**
			SUBTOTAL SECTIONS 1-5		**$20,611,076**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

					UNIT COST	SECTION COST
SECTION 6. Minor Items						
Subtotal Sections 1-5		$20,611,076	x	5%	$1,030,554	
			TOTAL MINOR ITEMS			$1,030,554
SECTION 7. Roadway Mobilization						
Subtotal Sections 1-5		$20,611,076				
Minor Items		$1,030,554				
	SUM	$21,641,630	x	10%	$2,164,163	
			TOTAL ROADWAY MOBILIZATION			$2,164,163
SECTION 8. Roadway Additions						
Supplemental						
Subtotal Sections 1-5		$20,611,076				
Minor Items		$1,030,554				
	SUM	$21,641,630	x	5%	$1,082,082	
Contingencies						
Subtotal Sections 1-5		$20,611,076				
Minor Items		$1,030,554				
	SUM	$21,641,630	x	10%	$2,164,163	
			TOTAL ROADWAY ADDITIONALS			**$3,246,245**
			TOTAL ROADWAY ITEMS **(Total of Sections 1-8)**			$27,052,038
			ROUND OFF TO :			**$27,052,000**

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488
Date: 8/31/2011

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

II. STRUCTURES ITEMS

The estimated contruction costs included 10% time related overhead, 10% mobilization and 25% contingencies.

Bridge Name	Bridge No.	Scope	Type	Cost

TOTAL COST FOR STRUCTURE $0

TOTAL STRUCTURES ITEMS $0

ROUND OFF TO : **$0**

Estimate Prepared By : Juan M. Amezcua **Phone # :** 909-383-6488

Date : 7/21/2011

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM 33.3/R36.9
08-804-EA 0K290K

III. RIGHT OF WAY

Right of Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Value	Escalated Rate	Escalated Value
Acquisition, including Excess Lands, Damages and Goodwill			
Utility Relocation (State share)			
Clearance/Demolition			
Project Permit Fees			
Title and Escrow Fees			
Condemnation Costs			
TOTAL RIGHT OF WAY (CURRENT VALUE) :	**$0**		
TOTAL ESCALATED VALUE :			**$0**

ROUND OFF TO :	**$0**

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488

Date: 07/21/11

PRELIMINARY
PROJECT COST ESTIMATE SUMMARY

PHASE 3

TYPE OF ESTIMATE : SUPPLEMENTAL PROJECT SCOPE SUMMARY REPORT

SBd-010-PM R36.9/R39.1
08-804-EA 0K290K

PROGRAM CODE:

PIP NUMBER:

PROJECT DESCRIPTION : Pavement Rehabilitation on I-10 Phase 3

LIMITS : From PM R36.9 to PM R39.1

PROPOSED IMPROVEMENTS : Crack, seat and overlay existing pavement and ramps rehabilitation.

ROADWAY ITEMS		$14,788,000
STRUCTURE ITEMS		$0
SUBTOTAL CONSTRUCTION		$14,788,000
RIGHT OF WAY	(Current Value)	$0
SUBTOTAL PROJECT COST		$14,788,000
SUPPORT COST	(20% Subtotal)	$2,957,600
TOTAL PROJECT COST		**$17,745,600**
ROUND OFF TO:		**$17,746,000**

Prepared By:
Design Engineer Juan M. Amezcua Date: September 8, 2011

Reviewed By
Project Engineer Minh Van Tran Date: September 8, 2011

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM R36.9/R39.1
08-804-EA 0K290K

I. ROADWAY ITEMS	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 1. Earthwork					
Crack Existing Concrete Pavement	165,205	Yd^2	$3	$413,013	
Roadway Excavation	1,547	Yd^3	$20	$30,933	
Imported Borrow	0	Yd^3	$0	$0	
Develop Water Supply	1	LS	$30,000	$30,000	
Clearing & Grubbing	1	LS	$30,000	$30,000	
Minor Roadway Excavation and Embankment	0	Yd^3	$0	$0	
			Total Earthwork Section		**$503,946**
SECTION 2. Structural Section					
Rubberized Hot Mix Asphalt	11,151	TON	$83	$925,563	
Pavement Reinforced Fabric	165,205	Yd^2	$3	$495,616	
Hot Mix Asphalt (Type C)	55,757	TON	$83	$4,627,814	
Hot Mix Asphalt	11,151	TON	$83	$925,563	
Geosynthetic Pavement Interlayer	165,205	Yd^2	$1	$165,205	
Rubberized Hot Mix Asphalt (Ramps)	3,132	TON	$83	$259,956	
			Total Structural Section		**$7,399,717**
SECTION 3. Drainage					
Drainage System Upgrade and Protection	1	LS	$150,000	$150,000	
			Total Drainage Section		**$150,000**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM R36.9/R39.1
08-804-EA 0K290K

	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 4. Specialty Items					
Construct Metal Beam Guard Rail	23,232	FT	$20	$464,640	
Reconstruct Metal Beam Guard Railing	23,232	FT	$12	$278,784	
Storm Water Pollution Prevention Plan	1	LS	$30,000	$30,000	
Water Polution Control	1	LS	$50,000	$50,000	
Water Polution Control Maintanance Sharing	1	LS	$20,000	$20,000	
Construction Site Mangement	1	LS	$250,000	$250,000	
Construct Curb Ramps	8	EA	$7,000	$56,000	
Remove Sound Wall	0	FT	$40	$0	
Construct Sound Wall	0	FT	$400	$0	
Construct AC Dike	23,232	FT	$8	$174,240	
Erosion Control	1	LS	$100,000	$100,000	
Remove Thrie Beam Barrier	0	FT	$10	$0	
Temporary Crash Cushion	1	LS	$5,000	$5,000	
Resident Engineer Office Space.	1	LS	$100,000	$100,000	
			Total Specialty Items		**$1,528,664**
SECTION 5. Traffic Items					
Temporary Railling Barrier Type K	23,232	FT	$9	$218,381	
Traffic Items	1	LS	$1,000,000	$1,000,000	
Traffic Control Systems	1	LS	$350,000	$350,000	
Traffic Management Plan	1	LS	$116,400	$116,400	
			Total Traffic Items		**$1,684,781**
			SUBTOTAL SECTIONS 1-5		**$11,267,108**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM R36.9/R39.1
08-804-EA 0K290K

					UNIT COST	SECTION COST
SECTION 6. Minor Items						
Subtotal Sections 1-5		$11,267,108	x	5%	$563,355	
			TOTAL MINOR ITEMS			$563,355
SECTION 7. Roadway Mobilization						
Subtotal Sections 1-5		$11,267,108				
Minor Items		$563,355				
	SUM	$11,830,464	x	10%	$1,183,046	
			TOTAL ROADWAY MOBILIZATION			$1,183,046
SECTION 8. Roadway Additions						
Supplemental						
Subtotal Sections 1-5		$11,267,108				
Minor Items		$563,355				
	SUM	$11,830,464	x	5%	$591,523	
Contingencies						
Subtotal Sections 1-5		$11,267,108				
Minor Items		$563,355				
	SUM	$11,830,464	x	10%	$1,183,046	
			TOTAL ROADWAY ADDITIONALS			**$1,774,570**
			TOTAL ROADWAY ITEMS **(Total of Sections 1-8)**			$14,788,080
			ROUND OFF TO :			**$14,788,000**

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488
Date: 9/8/2011

II. STRUCTURES ITEMS

The estimated contruction costs included 10% time related overhead, 10% mobilization and 25% contingencies.

Bridge Name	Bridge No.	Scope	Type	Cost

TOTAL COST FOR STRUCTURE $0

TOTAL STRUCTURES ITEMS $0

ROUND OFF TO : **$0**

Estimate Prepared By : Juan M. Amezcua **Phone # :** 909-383-6488

Date : 9/8/2011

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SBd-010-PM R36.9/R39.1
08-804-EA 0K290K

III. RIGHT OF WAY

Right of Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter I, Caltrans. Right of Way Procedural Handbook.

	Current Value	Escalated Rate	Escalated Value
Acquisition, including Excess Lands, Damages and Goodwill			
Utility Relocation (State share)			
Clearance/Demolition			
Project Permit Fees			
Title and Escrow Fees			
Condemnation Costs			
TOTAL RIGHT OF WAY (CURRENT VALUE) :	**$0**		
TOTAL ESCALATED VALUE :			**$0**

ROUND OFF TO : $0

Estimate Prepared By : Juan M. Amezcua **Phone #** 909-383-6488

Date: 08/18/11

ATTACHMENT D

PAVEMENT CONDITION SURVEY INVENTORY

Collection Date: / / : : AM
Printed: 08/25/2011

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District	8
County	SBD
Route	010
Begin PM	30.883

District 8 County SBD Route 010

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
30.883	-	**30.917**	**0.034**	**0.238**	**MLD**	**183**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L1	B											9 133	0		N/A - Bridge
L2	B											21 164	0		N/A - Bridge
L3	B											5 116	0		N/A - Bridge
L4	B											13 142	0		N/A - Bridge
R1	B											22 166	0		N/A - Bridge
R2	B											5 112	0		N/A - Bridge
R3	B											14 145	0		N/A - Bridge
R4	B											13 143	0		N/A - Bridge

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
30.917	-	**31.000**	**0.083**	**0.498**	**MLD**	**154**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L4	R					23	0	1				N/A	32		SLAB CRACKING
R1	R											8 131	98		GOOD CONDITION
R2	R											5 102	98		GOOD CONDITION
R3	R											8 129	98		GOOD CONDITION
R4	R					18	0	4				5 115	32		SLAB CRACKING

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
31.000	-	**31.012**	**0.012**	**0.072**	**MLD**	**154**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L4	R					43	0	3				N/A	32		SLAB CRACKING
R4	R					29	0	7				N/A	32		SLAB CRACKING

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
31.012	-	**31.039**	**0.027**	**0.162**	**MLD**	**163**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L1	B											15 149	0		N/A - Bridge
L2	B											22 167	0		N/A - Bridge
L3	B											5 121	0		N/A - Bridge
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
31.039	-	**31.405**	**0.366**	**2.196**	**MLD**	**163**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L1	R											13 144	98		GOOD CONDITION
L2	R											15 147	98		GOOD CONDITION
L3	R											5 103	98		GOOD CONDITION
L4	R					43	0	3				N/A	32		SLAB CRACKING
R1	R											17 153	98		GOOD CONDITION
R2	R											5 85	98		GOOD CONDITION
R3	R											8 131	98		GOOD CONDITION

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District 8 County SBD Route 010

Begin PM		End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
31.405	-	**31.440**	**0.035**	**0.210**	**MLD**	**163**	**1**
31.440	-	**31.520**	**0.080**	**0.480**	**MLD**	**163**	**1**
31.520	-	**31.603**	**0.083**	**0.498**	**MLD**	**163**	**1**
31.603	-	**31.874**	**0.271**	**1.626**	**MLD**	**163**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
R4	R					29	0	7				5 100	32		SLAB CRACKING
L3	B											5 91	0		N/A - Bridge
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
L1	R											23 169	98		GOOD CONDITION
L2	R											12 140	98		GOOD CONDITION
L3	R											5 88	98		GOOD CONDITION
L4	R					43	0	3				N/A	32		SLAB CRACKING
R1	R											16 150	98		GOOD CONDITION
R2	R											5 88	98		GOOD CONDITION
R3	R											5 109	98		GOOD CONDITION
R4	R					29	0	7				5 88	32		SLAB CRACKING
L1	B											15 149	0		N/A - Bridge
L2	B											19 159	0		N/A - Bridge
L3	B											5 114	0		N/A - Bridge
L4	B											N/A	0		N/A - Bridge
R1	B											23 170	0		N/A - Bridge
R2	B											5 90	0		N/A - Bridge
R3	B											5 112	0		N/A - Bridge
R4	B											5 94	0		N/A - Bridge
L1	R											9 133	98		GOOD CONDITION
L2	R											14 146	98		GOOD CONDITION
L3	R											5 89	98		GOOD CONDITION
L4	R					43	0	3				N/A	32		SLAB CRACKING
R1	R											12 140	98		GOOD CONDITION
R2	R											5 84	98		GOOD CONDITION
R3	R											5 99	98		GOOD CONDITION
R4	R					29	0	7				5 111	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District 8 County SBD Route 010

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
31.874	-	**31.909**	**0.035**	**0.210**	**MLD**	**139**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L1	B											14 145	0		N/A - Bridge
L2	B											14 146	0		N/A - Bridge
L4	B											N/A	0		N/A - Bridge
R1	B											25 174	0		N/A - Bridge
R2	B											10 135	0		N/A - Bridge
R3	B											16 151	0		N/A - Bridge
R4	B											8 129	0		N/A - Bridge
31.909	-	**31.989**	**0.080**	**0.480**	**MLD**	**139**		**1**							
L1	R											28 183	98		GOOD CONDITION
L2	R											18 156	98		GOOD CONDITION
L4	R					43	0	3				5 110	32		SLAB CRACKING
R1	R											17 153	98		GOOD CONDITION
R2	R											5 93	98		GOOD CONDITION
R3	R											5 119	98		GOOD CONDITION
R4	R					29	0	7				5 113	32		SLAB CRACKING
31.989	-	**32.000**	**0.011**	**0.066**	**MLD**	**139**		**1**							
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
32.000	-	**32.038**	**0.038**	**0.228**	**MLD**	**139**		**1**							
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
32.038	-	**32.111**	**0.073**	**0.438**	**MLD**	**139**		**1**							
L1	R											17 154	98		GOOD CONDITION
L2	R											25 174	98		GOOD CONDITION
L4	R					32	1	2				5 113	31		SLAB CRACKING
R1	R											21 164	98		GOOD CONDITION
R2	R											5 112	98		GOOD CONDITION
R3	R											12 141	98		GOOD CONDITION
R4	R					36	0	6				13 144	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District	8
County	SBD
Route	010
Begin PM	32.111

District 8 County SBD Route 010

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
32.111	-	**32.142**	**0.031**	**0.186**	**MLD**	**143**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
32.142	-	**32.364**	**0.222**	**1.332**	**MLD**	**143**		**1**							
L1	R											12 141	98		GOOD CONDITION
L2	R											18 157	98		GOOD CONDITION
L3	R											5 115	98		GOOD CONDITION
L4	R					32	1	2				5 118	31		SLAB CRACKING
R1	R											23 169	98		GOOD CONDITION
R2	R											5 96	98		GOOD CONDITION
R3	R											7 128	98		GOOD CONDITION
R4	R					36	0	6				5 118	32		SLAB CRACKING
32.364	-	**32.391**	**0.027**	**0.162**	**MLD**	**143**		**1**							
L1	B											12 141	0		N/A - Bridge
L2	B											20 160	0		N/A - Bridge
L3	B											5 90	0		N/A - Bridge
L4	B											5 117	0		N/A - Bridge
R1	B											16 150	0		N/A - Bridge
R2	B											5 91	0		N/A - Bridge
R3	B											6 125	0		N/A - Bridge
R4	B											5 109	0		N/A - Bridge
32.391	-	**32.614**	**0.223**	**1.338**	**MLD**	**143**		**1**							
L1	R											17 153	98		GOOD CONDITION
L2	R											19 159	98		GOOD CONDITION
L3	R											5 64	98		GOOD CONDITION
L4	R					32	1	2				5 103	31		SLAB CRACKING
R1	R											19 159	98		GOOD CONDITION
R2	R											5 88	98		GOOD CONDITION
R3	R											5 112	98		GOOD CONDITION
R4	R					36	0	6				5 117	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District	8
County	SBD
Route	010
Begin PM	32.614

District 8 County SBD Route 010

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
32.614	-	**32.641**	**0.027**	**0.162**	**MLD**	**143**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
32.641	-	**33.000**	**0.359**	**2.154**	**MLD**	**143**		**1**							
L1	R											11 138	98		GOOD CONDITION
L2	R											15 149	98		GOOD CONDITION
L3	R											5 98	98		GOOD CONDITION
L4	R					32	1	2				15 148	31		SLAB CRACKING
R1	R											5 123	98		GOOD CONDITION
R2	R											5 85	98		GOOD CONDITION
R3	R											5 94	98		GOOD CONDITION
R4	R					36	0	6				5 111	32		SLAB CRACKING
33.000	-	**33.128**	**0.128**	**0.768**	**MLD**	**143**		**1**							
L1	R											13 143	98		GOOD CONDITION
L2	R											18 156	98		GOOD CONDITION
L3	R											5 72	98		GOOD CONDITION
L4	R					32	1	2				5 95	31		SLAB CRACKING
R1	R											15 147	98		GOOD CONDITION
R2	R											5 99	98		GOOD CONDITION
R3	R											5 123	98		GOOD CONDITION
R4	R					19	0	1				25 173	32		SLAB CRACKING
33.128	-	**33.157**	**0.029**	**0.174**	**MLD**	**132**		**1**							
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
33.157	-	**33.291**	**0.134**	**0.804**	**MLD**	**132**		**1**							
L1	R											29 184	98		GOOD CONDITION
L2	R											22 167	98		GOOD CONDITION
L3	R											8 130	98		GOOD CONDITION
L4	R					32	1	2				5 106	31		SLAB CRACKING
R1	R											18 157	98		GOOD CONDITION
R2	R											5 86	98		GOOD CONDITION
R3	R											5 104	98		GOOD CONDITION

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District 8 County SBD Route 010

Begin PM		End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
33.291	-	**33.330**	**0.039**	**0.234**	**MLD**	**141**	**1**
33.330	-	**34.000**	**0.670**	**4.020**	**MLD**	**141**	**1**
34.000	-	**35.000**	**1.000**	**8.000**	**MLD**	**143**	**1**
35.000	-	**35.659**	**0.659**	**5.272**	**MLD**	**143**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
R4	R					19	0	1				5 109	32		SLAB CRACKING
L3	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
L1	R											15 149	98		GOOD CONDITION
L2	R											5 86	98		GOOD CONDITION
L3	R					32	4	4				5 92	31		SLAB CRACKING
L4	R											5 107	98		GOOD CONDITION
R1	R											12 140	98		GOOD CONDITION
R2	R											16 150	98		GOOD CONDITION
R3	R											5 110	98		GOOD CONDITION
R4	R					19	0	1				5 108	32		SLAB CRACKING
L1	R											12 140	98		GOOD CONDITION
L2	R											5 93	98		GOOD CONDITION
L3	R					38	1	1				5 113	31		SLAB CRACKING
L4	R											8 130	98		GOOD CONDITION
R1	R											12 140	98		GOOD CONDITION
R2	R											5 91	98		GOOD CONDITION
R3	R											5 97	98		GOOD CONDITION
R4	R					7	0	3				5 118	32		SLAB CRACKING
L1	R											9 133	98		GOOD CONDITION
L2	R											5 90	98		GOOD CONDITION
L3	R					16	1	5				5 118	31		SLAB CRACKING
R1	R											5 88	98		GOOD CONDITION
R2	R											5 117	98		GOOD CONDITION
R3	R											24 171	98		GOOD CONDITION
R4	R					0	0	0				5 119	33		UNSEALED CRACKS OR

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District 8 County SBD Route 010

Begin PM	-	End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
35.659	-	**36.000**	**0.341**	**2.046**	**MLD**	**117**	**1**
36.000	-	**36.575**	**0.575**	**3.450**	**MLD**	**117**	**1**
R 36.575	- R	**36.763**	**0.188**	**1.128**	**MLD**	**117**	**1**
R 36.763	- R	**36.909**	**0.146**	**0.876**	**MLD**	**117**	**1**

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
L1	R											14 146	98		GOOD CONDITION
L2	R											6 124	98		GOOD CONDITION
L3	R					23	1	2				20 162	31		SLAB CRACKING
R1	R											5 82	98		GOOD CONDITION
R2	R											5 71	98		GOOD CONDITION
R3	R											5 97	98		GOOD CONDITION
R4	R					0	0	0				5 120	33		UNSEALED CRACKS OR
L1	R											14 145	98		GOOD CONDITION
L2	R											5 110	98		GOOD CONDITION
L3	R					23	1	2				5 120	31		SLAB CRACKING
R1	R											5 89	98		GOOD CONDITION
R2	R											5 117	98		GOOD CONDITION
R3	R											11 138	98		GOOD CONDITION
R4	R					0	0	0				5 114	33		UNSEALED CRACKS OR
L1	R											11 137	98		GOOD CONDITION
L2	R											5 105	98		GOOD CONDITION
L3	R					23	1	2				5 80	31		SLAB CRACKING
R1	R											5 86	98		GOOD CONDITION
R2	R											5 81	98		GOOD CONDITION
R3	R											5 113	98		GOOD CONDITION
R4	R					0	0	0				N/A	33		UNSEALED CRACKS OR
L1	R											5 119	98		GOOD CONDITION
L2	R											9 132	98		GOOD CONDITION
L3	R					23	1	2				16 150	31		SLAB CRACKING
R1	R											5 95	98		GOOD CONDITION
R2	R											5 93	98		GOOD CONDITION
R3	R					17	0	1				13 142	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 8, SBD, Rte 010, PM 30.9 - 39.1

District 8 County SBD Route 010

Begin PM - End PM		Length	LaneMi. (Est.)	Type	AADT (,000)	MSL									
Lane	Surface Type	Alligator Cracking A %	B %	C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	3rd %	Corner %	Faulting	Patching Area %	Poor Cond.?	Ride, IRI		Priority	Skid	Defect
R 36.909	**- R 36.931**		**0.022**	**0.132**	**MLD**		**117**		**1**							
L3	B												N/A	0		N/A - Bridge
R3	B												N/A	0		N/A - Bridge
R 36.931	**- R 38.000**		**1.069**	**6.414**	**MLD**		**117**		**1**							
L1	R											13	143	98		GOOD CONDITION
L2	R											5	76	98		GOOD CONDITION
L3	R					8	1	5				5	110	31		SLAB CRACKING
R1	R											5	73	98		GOOD CONDITION
R2	R											5	66	98		GOOD CONDITION
R3	R					17	0	1				5	111	32		SLAB CRACKING
R 38.000	**- R 39.160**		**1.160**	**6.960**	**MLD**		**107**		**1**							
L1	R											16	151	98		GOOD CONDITION
L2	R											5	73	98		GOOD CONDITION
L3	R					11	0	3				5	98	32		SLAB CRACKING
R1	R											5	77	98		GOOD CONDITION
R2	R											5	74	98		GOOD CONDITION
R3	R					17	1	2				5	114	31		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

ATTACHMENT E

ISA CHECKLIST

INITIAL SITE ASSESSMENT (ISA) CHECKLIST

DATE: 7/28/11

PROJECT INFORMATION

District 08 County SBd Route 10 Post Mile 30.9/R39.1 EA 0K290 PN 08-0002-0559

Description of Work: Lane replacement, median and inside shoulder widening, and ramp rehabilitation. From Jct 38 to the Riverside County Line.

Project Engineer Minh Van Tran Telephone 909-383-6323

Environmental Coordinator Anwar Ali Telephone 909-383-7555

DATE ISA NEEDED 8.1.11

Attach the project location map and an aerial photo to this checklist to show the location of proposed R/W and all known and/or potential hazardous waste sites.

1. Project Features: New R/W? NO Excavation? YES Railroad Involvement? NO
   Structure Demolition/Modification? NO Utility Relocation? NO
2. Project Setting: Rural - YES Urban -
   Current Land Uses: Multi-lane freeway
   Adjacent Land Uses: Residential/Commercial
   (Industrial light industry, commercial, agriculture, residential, other)
3. Check Federal, State, and local environmental and health regulatory agency records as necessary to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets as needed to provide all information available pertinent to the proposed project. IS PROJECT
4. AFFECTING SITES LISTED ON CORTESE LIST? NO IF YES, DESCRIBE SITE:
5. Conduct Field Inspection R. Roa Date

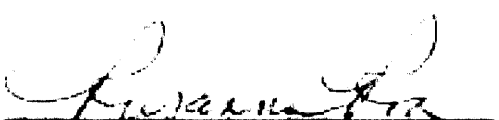
Storage Structures/Pipelines:				Contamination: (spills, leaks, illegal dumping, etc)		Hazardous Materials: (asbestos, lead, etc.)	
UST's	NO			Surface Staining	NO	Buildings	NO
Surface tanks	NO			Oil Sheen	NO	Sprayed-on Fireproofing	NO
Sumps	NO	Ponds	NO	Odors	NO	Pipe Wrap	NO
Drums	NO	Basins	NO	Vegetation damage	NO	Friable Tile	NO
Transformers	NO			Other		Acoustical Plaster	NO
Landfill	NO					Serpentine	NO
Other						Paint YES	Other

Other comments and/or observations **If needed: Include SSP 15-305 for grinding off of yellow paint or thermoplastic.**

ISA DETERMINATION:

Does the project have potential hazardous waste involvement? LOW RISK

If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Preliminary Site Investigation? NO If yes, explain, and give estimate of additional time required:

ISA CONDUCTED BY:  **DATE:** 7/28/11

ROSANNA ROA, ENV. ENG. MS-824
DISTRICT 08 HAZARDOUS WASTE COORDINATOR
(909) 383-5917

ATTACHMENT F

CATERGORICAL EXEMPTION / EXCLUSION DETERMINATION

CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM

08-SBd-10	30.9/R39.1	08-0K2901 PN # 0800020559	N/A
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

PROJECT DESCRIPTION:

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

The proposed project scope includes total lane replacement, median and inside shoulder widening, and ramp rehabilitation on Interstate 10 (I-10) from the junction of SR-38/Orange Street to the San Bernardino/Riverside County line in/near the Cities of Redlands and Calimesa. The construction limits of the project are PM 30/R39.1 and the work area for the project is PM 30.8/R0.10.

(Additional information on attached continuation sheet)

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION (Check one)

☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☒ **Categorically Exempt. Class** 1c . (PRC 21084; 14 CCR 15300 et seq.)

☐ **Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3])

James Shankel		John Ashton	
Print Name: Environmental Branch Chief		Print Name: Project Manager/DLA Engineer	
Signature	Date: 9-1-11	Signature	Date: 9-1-11

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b) (http://www.fhwa.dot.gov/hep/23cfr771.htm - sec.771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

CALTRANS NEPA DETERMINATION (Check one)

☒ **Section 6004:** The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2010, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- 23 CFR 771.117(c): activity (c)(___)
- 23 CFR 771.117(d): activity (d)(1)
- Activity listed in the MOU between FHWA and the State

☐ **Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

James Shankel		John Ashton	
Print Name: Environmental Branch Chief		Print Name: Project Manager/DLA Engineer	
Signature	Date: 9-1-11	Signature	Date: 9-1-11

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). **Revised June 7, 2010**

08-SBd-10	30.9/R39.1	08-0K2901 PN # 0800020559	N/A
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

(Additional information for project description):
The project proposes to rehabilitate the existing Portland Cement Concrete Pavement (PCCP). Replacing with Jointed Plain Concrete Pavement (JPCP) to reserve the pavement service life for 40 years or by cracking, seating existing pavement and overlay with Hot-Mixed Asphalt (HMA) Concrete to preserve the pavement service life for 20 years. This project also proposes to rehabilitate the Asphalt Concrete pavement on the exit and entrance ramps.

Due to possible funding constraints, the project is being planned to be constructed in up to three (3) phases, if necessary, however the project will be constructed in fewer phases or all at once if required funding is secured. The currently planned construction phases are as follows:

Phase 1: PM 30.9/33.3

Phase 2: PM 33.3/R36.9

Phase 3: PM R36.9/R39.1

Within the project limits, the portion of I-10 being planned to be constructed as phase 1, if phasing becomes necessary, has four-12 foot wide Mixed Flow Lane (MFL) in each direction.

The portion of I-10 being planned to be constructed as phase 2, if phasing becomes necessary, extends from PM 33.3 to PM 35.0 and has four-12 foot wide MFL in the westbound direction and five-12 foot wide MFL in the eastbound, respectively. From PM 35.0 to PM R36.9 has four-12 foot wide MFL in each direction. Left paved shoulder widths vary from 10 feet to 18 feet, and right shoulders are 10 feet wide.

The portion of I-10 being planned to be constructed as phase 3, if phasing becomes necessary, has three-12 foot wide MFL in each direction, 36-foot wide median, and right shoulders are 10 feet wide.

The following technical documentation was prepared in conjunction with determining and addressing applicable California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documentation and compliance requirements.

NATURAL ENVIRONMENT STUDY (Minimal Impacts) – August 2011.
CULTURAL RESOURCES COMPLIANCE Memorandum – July 2011.
INITIAL SITE ASSESSMENT (ISA) Checklist – July 2011.

The Natural Environment Study (Minimal Impacts) (NESMI) concluded there are no native plant species or animal species that are expected to occur inside the project limits. The project is contained entirely on Caltrans's right of way and is expected to not affect any species or habitat. No mitigation was determined to be required. Measures were identified to avoid and minimize impacts during construction activity (see attached Environmental Commitments Record (ECR)). No permits will be needed for this project.

Cultural Studies determined the project falls under Stipulation VII of the Programmatic Agreement (Section 106 PA), and is a "screened undertaking," as identified in Attachment 2, Class 1, "Pavement reconstruction, resurfacing, or placement of seal coats," Class 2, "Minor widening of less than one-half-lane width, adding lanes in the median, or adding paved shoulders," Class 5, "Minor modification of interchanges and realignments of on/off ramps," Class 11, "Modification of existing features, such as slopes, ditches, curbs, sidewalks, driveways, dikes, or headwalls, within or adjacent to the right of way," Class 13, "Addition or replacement of devices, such as glare screens, median barriers, fencing, guardrails, safety barriers, energy attenuators, guide posts, markers, safety cables, ladders, lighting, hoists, or signs," Class 14, "Removal or replacement of roadway markings, such as painted stripes, raised pavement markers, thermoplastic tape, or

08-SBd-10	30.9/R39.1	08-0K2901 PN # 0800020559	N/A
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

raised bars, or installation of sensors in existing pavement.," Class 19, "Any work on Category 5 bridges that are less than 50 years of age, including rehabilitation or reconstruction."

The Initial Site Assessment (ISA) Checklist included the determination that the project's potential for hazardous waste involvement was "LOW RISK." The ISA Checklist included the comment that Standard Special Provisions (SSP) 15-305 for grinding off of yellow paint or thermoplastic.

In conjunction with the results of the above technical documentation, the Avoidance, Minimization, and/or Mitigation Measures included in the initial Environmental Commitments Record (ECR) prepared for this project, will be implemented during the Final Design (Plans, Specifications, and Estimates) and/or the Construction phases of this project as applicable. If it is determined that revisions to the ECR are required for this project during the Final Design phase (PS&E), or the Construction phase, the ECR will be updated accordingly.

Changes to the project's scope of work, limits, construction strategy and/or staging and storage requirements, and/or the timeframe of construction, as well as Final Design (PS&E) efforts not addressed during preliminary engineering (PA&ED), will require that the District's Division of Environmental Planning be notified in a timely manner, to determine if an Environmental Re-Evaluation (including possible updates to the original Technical Studies, or preparation of new Technical Studies) is required.

ATTACHMENT G

RIGHT OF WAY DATA SHEET

July 31, 2011
08-SBd 10 -PM 30.9/R39.1
Project Description: Pavement Rehabilitation
EA0K290 PN #00-0000-1499

To: GREG RAMIREZ

From: BETTY BOBOSIK
R/W Project Delivery

Subject: Current Estimated Right of Way Costs

We have completed an updated ROW data sheet for estimate of the right of way costs for the above-referenced project based on maps we received from you **July 14, 2011** and the following assumptions and limiting conditions:

[ ] 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.

[ ] 2. The transportation facilities have not been sufficiently designed so that the estimator could determine the damages to any of the remainder parcels affected by the project.

[ ] 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.

[X] 4. We have determined there are no right of way functional involvement in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 6 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 225), we will require a minimum of 4 months prior to the date of certification of the project. Either of these actions may reflect adversely on the District's other programs or our public image generally.

*TOTAL PROJECT HOURS FOR R/W: 171

*NOTE: THESE HOURS ARE PRELIMINARY BASED ON THE INFORMATION PROVIDED WITH THE DATA SHEET REQUEST. HOURS ARE SUBJECT TO CHANGE AS NEW INFORMATION IS PROVIDED.

Attachments:
[XX] Right of Way Data Sheet
[XX] Utility Information Sheet
[XX] Railroad Information Sheet

EVNT RW	7/3
COST RW1-6	7/3
TEXT TI	7/3
SCAN	7/3
CLASS	
AGRE	
TPRC	

July 31, 2011
08-SBd 10 –PM 30.9/R39.1
Project Description: Pavement Rehabilitation
EA0K290 PN #00-0000-1499

1. Right of Way Cost Estimate:

			Value
A.	Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	$	0.00
B.	Acquisition of Offsite Mitigation. **None Requested.**	$	0.00
C.	Utility Relocation (State share)	$	0.00
D.	RAP	$	0.00
E.	Clearance/Demolition	$	0.00
F.	Title and Escrow Fees	$	0.00
G.	Project Permit Fees	$	0.00
H.	Condemnation Costs	$	0.00
I.	**Total R/W Estimate:**	**$**	**0.00**
J.	Construction Contract Work	$	0.00

1a. Real Property Services:

A.	Routine Maintenance (Object Code 058)	$	0.00
B.	Advertising Costs (Object Code 039)	$	0.00
C.	Utility Costs (Object Code 002)	$	0.00
D.	Total Real Property Services Estimate:	$	0.00

2. Anticipated Pypscan Date of Right of Way Certification 6/2012

3. Parcel Data:

Type	Dual/Appr	Utility Involvement
X		U4-1
A		-2
B		-3
C		-4
D		U5-7 2
E xxxx		-8
F xxxx		-9

Total 0

RR Involvement	No
C&M Agreement	0
Svc Contract	0
OE Clearances	1
Clauses	1
LIC/ROE	0
Government Lands	No
Number of Parcels	0
Misc. R/W Work	0
RAP Displacement	0
Clear/Demo	0
Const Permits	0
Condemnation	0
Permits to Enter-ENV	0

Areas: Right of Way: S.F. 0
Excess: S.F. 0
No. Excess Land Parcels: 0

4. Are there major items of construction contract work?
Yes ___ No _X_ (If yes, explain.)

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). **No right of way required**. _X_

Type and Number of Parcels:
Fee 0
Partial 0
Full 0
Easements 0
Temporary 0
Permanent 0

6. Is there an effect on assessed valuation?
Yes ___ Not Significant ___ No _X_ (If yes, explain.)

7. Are utility facilities or rights of way affected?
Yes No **X** (If "Yes," attach Utility Information Sheet, Exhibit 4-EX-5.)
The following checked items may seriously impact lead time for utility relocation:
☐ Longitudinal policy conflict(s)
☐ Environmental concerns impacting acquisition of potential easements
☐ Power lines operating in excess of 50 KV and substations
(See attached Exhibit 4-EX-5 for explanation.)

8. Are railroad facilities or rights of way affected? Yes ____ No _X_
(If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)

9. Were any previously unidentified sites with hazardous waste and/or material found? Yes ___ None Evident _X_ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)

10. Are RAP displacements required? Yes ___ No _X_(If yes, provide the following information.)

No. of single family ____ No. of business/nonprofit ____

No. of multi-family ____ No. of farms ____

Based on Draft/Final Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required?
Yes ___ No _X_(If yes, explain.)

12. Are there potential relinquishments and/or abandonments?
Yes ___ No _X_(If yes, explain.)

13. Are there existing and/or potential Airspace sites?
Yes ___ No _X_ (If yes, explain.)

14. Indicate the anticipated Right of Way schedule and lead time requirements.
(Discuss if District proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipate

PYPSCAN lead time (from Maps to R/W to project certification) _6_months.

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?

July 31, 2011
08-SBd 10 –PM 30.9/R39.1
Project Description: Pavement Rehabilitation
EA0K290 PN #00-0000-1499

Yes _X_ No ___ (If no, discuss.)

Evaluations prepared by:

Right of Way: Name LAWRENCE KELLY Date 7-14-11

Railroad: Name MARGIE SMITH Date 7-15-11

Utilities: Name DAVID C. MOORE For Date 7-13-11

Government Lands: Name ANTHONY RIZZI Date 7/18/11

Property Management: Name JACKIE WILLIAMS Date 7-19-11

Reviewed By:

BETTY BOBOSIK
Senior Right of Way Agent
Project Coordination & Railroads
District 8, Right of Way

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.

SUZETTE SHELLOOE,
Acting, Program Delivery Manager
District 8, Right of Way

Date 7/27/11

cc: Program Manager
Project Manager

08-SBD-RT 10-PM 30.9/R39.1
Project Description: Pavement rehab
EA 0K290 Pn# (00 0000 1499)

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

UTILITY INFORMATION SHEET

1. Name of utility companies involved in project:

   Southern California Edison-Distribution and Transmission, Southern California Gas-Distribution, Verizon, AT&T-Transmission and Distribution, Time Warner Cable, Yucaipa Valley Water Company, Western Heights Water Company, So Mesa Water Company, City of Calimesa, City of Redlands Public Works, Bear Valley Mutual Water Company, and Burlington Northern Santa Fe Railroad.

2. Types of facilities and agreements required:

   Underground electric, gas, telephone, fiber optic, water, sewer and cable TV. Overhead electric, telephone and cable TV. Notices to Owners and Utility Agreements will probably not be required.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? **Yes.**

   AT&T and Verizon have a longitudinal Fiber Optic installation legally located by State 'Exception'. State has 100% prior rights.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

   Design has indicated that this project construction proposes "lane replacement, median and inside shoulder widening, and ramp rehabilitation." No additional right of way is required. Excavation is required to a depth of approximately two feet. Design provided Utility Plans with existing utilities plotted from prior State Project EA 4192U1 and EA 474401. The Utility Plans include pothole tables with necessary positive location information. All existing utilities are estimated to be able to be protected in place with no Pothole or Relocation requirements. Design and the R/W Utility Coordinator will need to contact the Utility Owners to confirm that there are no conflicts with existing High Risk Gas and Fiber Optic lines.

5. PMCS Input Information

   Total estimated cost of State's obligation for utility relocation on this project:
   (Phase 9 funding) **$ 0**

   Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

Utility Involvement

U4-1 ____	U5-7 **2**
-2 ____	-8 ____
-3 ____	-9 ____
-4 ____	

Prepared By: _____ Date: **July 12, 2011**
JERRY ARNERICH for DAVID MOORE
Right of Way Utility Estimator

July 31, 2011
08-SBd 10 -PM 30.9/R39.1
Project Description: Pavement Rehabilitation
EA0K290 PN #00-0000-1499

1. Describe railroad facilities or rights of way affected.

   BNSF – Redlands OH, BR 54-472, PM 31.520

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes ____ No__X__(If yes, explain.)

3. Discuss types of agreements and rights required from the railroads. Are grade crossings requiring service contracts, or grade separations requiring construction and maintenance agreements involved?

   OE Clearance and Section 13 short clauses.

4. Remarks (non-operating railroad right of way involved?):

   Contractor must ensure that no objects or debris fall on the railroad's tracks or property by installing a protective barrier where necessary.

5. Is Government Lands involved? Yes ____ No __X__
   If yes, number of parcels __0__
   Agency Name and Explanation:

6. PMCS Input Information

RR Involvement	No
C&M Agreement	0
SVC Contract	0
OE Clearances	1
Clauses	1
LIC/RE	0
Government Lands	No
Number parcels	0

Prepared By: Margie Smith Date: 7-19-11
MARGIE SMITH
Right of Way Railroad Coordinator

Prepared By: _____ Date: 7/19/11
ANTHONY RIZZI
Right of Way Government Lands Coordinator

July 31, 2011
08-SBd 10 -PM 30.9/R39.1
Project Description: Pavement Rehabilitation
EA0K290 PN #00-0000-1499

WBS CODE	WBS ACTIVITY	NUMBER OF PARCELS	HOURS	COST
	PROPERTY MANAGEMENT		NOT APPLICABLE X	
195.40.05	Fair Market Rent Determinations (Residential)			
195.40.10	Fair Market Rent Determinations (Non-Residential)			
195.40.15	Regular Rental Property Management			
195.40.20	Property Maintenance and Rehabilitation (Rental Property)			
195.40.25	Property Maintenance and Rehabilitation (Non-Rental Property)			
195.40.30	Hazardous Waste and Hazardous Materials			
195.40.35	Transfer of Property to Clearance Status			
270.25.03	Secure Lease for Resident Engineer's Office Space or Trailer			
		Subtotal		
	EXCESS LAND		NOT APPLICABLE X	
195.45.05	Excess Land Inventory			
195.45.10	Excess Land Appraisal and Public Sale Estimate			
195.45.15	Excess land Inventory ("Roberti Bill)			
195.45.20	Excess Land Sales to $15,000			
195.45.25	Excess Land Sales from $15,001 to $500,000			
195.45.30	Excess Land Sales over $500,000			
195.45.35	CTC and AAC Coordination			
		Subtotal		
		TOTAL HOURS (ONLY)		

Jackie Williams

JACKIE WILLIAMS
Property Management
Excess Land

Date: 7-19-11

Right of Way Workplan Breakdown:

Date Prepared 20-Jul-11

EA: 0K290

Date of Data Sheet: 7/31/2011

Utility Portion of DS Total $0

Project Coordinator: BETTY BOBOSIK

R/W Data Sheet Total $0

Project Manager: GREG RAMIREZ

08.400- WBS Description	WBS 10.1 RW Codes	Hours Needed		Hours if	OVERSIGHT HOURS		
PROJECT MANAGEMENT - PID COMPONENT	0.100.05	0			100.05	0	
PROJECT MANAGEMENT - PA & ED	0.100.10	0			100.10	0	
PROJECT MANAGEMENT - PS&E	0.100.15	0			100.15	0	
PROJECT MANAGEMENT - CONSTRUCTION	0.100.20	0			100.20	0	
PROJECT MANAGEMENT - RIGHT OF WAY	0.100.25	59			100.25	59	
INITIAL ALTERNATIVES DEVELOPMENT	1.150.10	3			150.10	0	
ALTERNATIVES ANALYSIS	1.150.15	2			150.15	0	
APPROVED PID [PSR PSSR ETC]	1.150.25	1			150.25	0	
ENGINEERING STUDIES	2.160.10	23			160.10	1	
DRAFT PROJECT REPORT	2.160.15	3			160.15	0	
ENVIRONMENTAL STUDY REQUEST [ESR]	2.160.30	1			160.30	0	
GENERAL ENVIRONMENTAL STUDIES	2.165.10	5			165.10	0	
DRAFT ENVIRONMENTAL DOCUMENT	2.165.25	5			165.25	0	
RAILROAD AGREEMENTS	2.170.15	0			170.15	0	
PUBLIC HEARING	2.175.10	0			175.10	0	
FINAL PROJECT REPORT	2.180.05	0			180.05	0	
FINAL ENVIRONMENTAL DOCUMENT	2.180.10	0			180.10	0	
UPDATED PROJECT INFORMATION	3.185.05	3			185.05	0	
ENGINEERING REPORTS	3.185.20	1			185.20	0	
RIGHT OF WAY REQUIREMENTS MAPS	3.185.25	3			185.25	0	
PROPERTY MANAGEMENT	4.195.40	0			195.40	0	
EXCESS LAND	4.195.45	0			195.45	0	
APPROVED UTILITY RELOCATION PLAN	4.200.15	2			200.15	0	
UTILITY RELOCATION PACKAGE	4.200.20	7			200.20	0	
UTILITY RELOCATION MANAGEMENT	4.200.25	4			200.25	0	
UTILITY CLOSE OUT	4.200.30	1			200.30	0	
RAILROAD AGREEMENTS	3.205.15	3			205.15	0	
PARCEL AND PROJECT DOCUMENTATION	4.225.50	15			225.50	15	
RIGHT OF WAY APPRAISALS	4.225.60	0			225.60	0	
RIGHT OF WAY ACQUISITION	4.225.65	0			225.65	0	
RIGHT OF WAY RELOCATION ASSISTANCE	4.225.70	1			225.70	0	
RIGHT OF WAY CLEARANCE	4.225.75	0			225.75	0	
RIGHT OF WAY CONDEMNATION	4.225.80	0			225.80	0	
DRAFT SPECIFICATIONS	3.230.35	1			230.35	0	
UPDATED PROJECT INFORMATION FOR PS&E PACKAGE	3.230.60	1			230.60	0	
ENVIRONMENTAL MITIGATION	3.235.05	0			235.05	0	
DETAILED SITE INVESTIGATION FOR HAZARDOUS WASTE	3.235.10	0			235.10	0	
PARCEL AND PROJECT DOCUMENTATION	4.245.50	25			245.50	25	
RIGHT OF WAY APPRAISALS	4.245.60	0			245.60	0	
RIGHT OF WAY ACQUISITION	4.245.65	0			245.65	0	
RIGHT OF WAY RELOCATION ASSISTANCE	4.245.70	0			245.70	0	
RIGHT OF WAY CLEARANCE	4.245.75	0			245.75	0	
RIGHT OF WAY CONDEMNATION	4.245.80	0			245.80	0	
CIRCULATED & REVIEWED DRAFT DISTRICT PS&E PACKAGE	3.255.05	0			255.05	0	
UPDATED PS&E PACKAGE	3.255.10	0			255.10	0	
RIGHT OF WAY CERTIFICATION DOCUMENT	3.255.65	0			255.65	0	
UPGRADED/UPDATED RIGHT OF WAY CERTIFICATION DOCUMENT	3.255.75	0			255.75	0	
CONSTRUCTION ENGINEERING WORK	5.270.20	0			270.20	0	
FUNTIONAL SUPPORT	5.285.10	0			285.10	0	
TECHNICAL SUPPORT	5.290.35	0			290.35	0	
	Total Hours	171		PY 0.10		102	0.06
RW Support Cost= Total hours x $68 per hour	For Informational Purpose Only	$11,612				$7,578	

ATTACHMENT H

TRANSPORTATION MANAGEMENT PLAN
ESTIMATE SHEET

TRANSPORTATION MANAGEMENT PLAN (TMP) DATA SHEET # 1 for PID, PSR, PR or PSE including DTM requirements for PSE and Construction Phase - This TMP is valid for **two years** from date of preparation, unless the project or impact changes.

V:\Operations\TrafficOps\DTM-TMP\TMP\New TMP\Project 08-0000-0000 to 08-0000-5000\Project 08-0000-0000 to 08-0000-0250\00-0000-1499 (0K290K)(SBd 10)\TMP\TMP

TEMPLATE: 0 TMP Data Sheet revised 090109.xls. CT & CONSULTANTS, PLEASE REQUEST THE LATEST TEMPLATE SINCE IT WILL HAVE THE CURRENT RATES, etc. CAUTION - ck for formulas in cells - amounts flow from Tab 3 to 2 to 1.

EA 08-0K290K(00-0000-1499) **DATE 8/25/2011**

08-SBD-10-PM 30.9/R33.3 Segment 1
PM R33.3/R36.9 Segment 2

Location: In Riverside County, on I-10, from Junction SR-38/Orange Street to San Bernardino/Riverside County line in/near the cities of Redlands and Claimesa.
Work: To perform crack, seat and overlay in median and shoulder widening, and ramp rehabilitation.

PLEASE NOTE:

Please Be Hereby Informed That This Project Shall Not Be Certified Without Approved Lane Requirement Chart/s (LRC) And Approved TMP Elements By DTM/TMP.

Date of TMP/Review Request memo: 7/6/2011
Documents available:
TMP request letter,Title Sheet, Typical Cross Section, Aerial Photo maps and Alternate 1 and 2.

SAMPLE TMP DATA SHEET - Instructions see Tab 6

Construction period per PE

EST START DATE	
EST END DATE	

BACKGROUND INFORMATION:

Construction period per WPS

DURATION:	100	WORKING DAYS FOR SEGMENT 1 OR SEGMENT 2	EST START DATE: Not Available
PROJECT COST:	$22,645,000-$30,263,000		EST END DATE: Not Available
TMP ESTIMATE:	**$162,000**	or #VALUE! OF THE PROJECT COST	

IMPACT	High	Medium	Low	NA
State HWY	X			
LocaL RD			X	
Ramps/ Connectors		X		

Details:*(Briefly explain traffic impacts and how you will mitigate them)*

If the TMP has been prepared by D8/Ops/TMP, use this signature block:

Prepared by Signature ORIGINAL SIGNED BY Cuong Tieu Date 8/25/2011

Name Cuong Tieu
Title Transportation Engineer
Organization Caltrans
Telephone/FAX (909) 383-4263
email cuong.tieu@dot.ca.gov

This Transportation Management Plan (TMP) has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained therein and the engineering data upon which recommendations, conclusions, and decisions are based.

Prepared by Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Name
Title
Organization
Telephone/FAX
email

Seal or Seal information

At 100% PSE these signature blocks need to be filled in:

LC recommends approval Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00
LC approval does not apply for encroachment permits (EP) because DTM handles EP closure requests.

Assist. TMP recommends approval Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Assist. DTM recommends approval Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Approved by Signature ORIGINAL SIGNED BY Cuong Tieu for Al Afaneh Date 12/15/2009

Al Afaneh
TMP/DTM Traffic Manager
Department of Transportation
District 8/Operations MS-B20
464 W 4th Street 6th Floor
909 383-4917, FAX 909 383-1068
Al_Afaneh@dot.ca.gov

Prepared for Minh Van Tran
cc:

Project Manager: Joe Meraz
Project Senior: Matthew Maestas
AAfaneh,

HYahya ,TSasis, or MJabson, Ops Surveillance
MKar (D8 Callbox Coordinator routes to SAFEs as needed. Also concerned if loops for supercallboxes or census stations are damaged)

Aleuschen

SLombardo
TLagana
Traci Peterson
Twatkins

VGau
MBoone
BWasser or LSartori
RTadi

MHess
UApabio
DMaleki
Benjamin Egiebor/D08/Caltrans/CAGov,
Cuong Tieu/D08/Caltrans/CAGov,
Kim L Walker/D08/Caltrans/CAGov,
DTM

DerekWilliams@chp.ca.gov (D8 TMC CHP Officer)
JoWilson@chp.ca.gov (Inland Division Cozeep/Mazeep Coordinator)

HTupper@chp.ca.gov (CHP Inland Division FSP Coordinator)

see Tab 6 re RCTC 6/28/05
MKirkhoff@sanbag.ca.gov (SANBAG's Callbox and FSP Manager - if SBd County FSP beats may be affected or CFSP needed)
KLynn@sanbag.ca.gov

If items are checked in Section 5 on the Table tab:

MKirkhoff@sanbag.ca.gov (SANBAG DM Manager)
KLynn@sanbag.ca.gov

TMP ESTIMATE	EA	08-0K290K(00-0000-1499)	DATE	8/25/2011

1. Public Information	NO	**YES**	MAYBE	$10,000
2. Motorist Information Strategies	NO	YES	**MAYBE**	$0
3. Incident Management	NO	**YES**	MAYBE	$152,000
4. Construction Strategies	NO	YES	**MAYBE**	$0
5. Demand Management (DM)	NO	YES	**MAYBE**	$0
6. Alternate Route Strategies	**NO**	YES	MAYBE	$0
7. Other Strategies	**NO**	YES	MAYBE	$0
			TMP TOTAL	**$ 162,000**

TRANSPORTATION MANAGEMENT PLAN (TMP) DATA SHEET # 1 for PID, PSR, PR or PSE including DTM requirements for PSE and Construction Phase - This TMP is valid for **two years** from date of preparation, unless the project or impact changes.

V:\Operations\TrafficOps\DTM-TMP\TMP\New TMP\Project 08-0000-0000 to 08-0000-5000\Project 08-0000-0000 to 08-0000-0250\00-0000-1499 (0K290K)(SBd 10)\TMP\TMP

TEMPLATE: 0 TMP Data Sheet revised 090109.xls. CT & CONSULTANTS, PLEASE REQUEST THE LATEST TEMPLATE SINCE IT WILL HAVE THE CURRENT RATES, etc. CAUTION - ck for formulas in cells - amounts flow from Tab 3 to 2 to 1.

EA 08-0K290K(00-0000-1499) **DATE 8/25/2011**

08-SBD-10-PM R36.9/R39.1 Segment 3

Location: In Riverside County, on I-10, from Junction SR-38/Orange Street to San Bernardino/Riverside County line in/near the cities of Redlands and Claimesa.
Work: To perform crack, seat and overlay in median and shoulder widening, and ramp rehabilitation.

PLEASE NOTE:

Please Be Hereby Informed That This Project Shall Not Be Certified Without Approved Lane Requirement Chart/s (LRC) And Approved TMP Elements By DTM/TMP.

Date of TMP/Review Request memo: 7/6/2011
Documents available:
TMP request letter,Title Sheet, Typical Cross Section, Aerial Photo maps and Alternate 1 and 2.

SAMPLE TMP DATA SHEET - Instructions see Tab 6

Construction period per PE

EST START DATE	
EST END DATE	

BACKGROUND INFORMATION:

Construction period per WPS

EST START DATE	Not Available
EST END DATE	Not Available

DURATION: 70 WORKING DAYS FOR SEGMENT 3
PROJECT COST: $23,596,000
TMP ESTIMATE: **$116,400** or 0.49% OF THE PROJECT COST

IMPACT	High	Medium	Low	NA
State HWY	X			
LocaL RD			X	
Ramps/ Connectors		X		

Details:*(Briefly explain traffic impacts and how you will mitigate them)*

If the TMP has been prepared by D8/Ops/TMP, use this signature block:

Prepared by Signature ORIGINAL SIGNED BY Cuong Tieu Date 8/25/2011

Name Cuong Tieu
Title Transportation Engineer
Organization Caltrans
Telephone/FAX (909) 383-4263
email cuong.tieu@dot.ca.gov

This Transportation Management Plan (TMP) has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained therein and the engineering data upon which recommendations, conclusions, and decisions are based.

Prepared by Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Name
Title
Organization
Telephone/FAX
email

Seal or Seal information

At 100% PSE these signature blocks need to be filled in:

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Assist. DTM recommends approval Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Approved by Signature ORIGINAL SIGNED BY Cuong Tieu for Al Afaneh
Date 12/15/2009

Al Afaneh
TMP/DTM Traffic Manager
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Prepared for Minh Van Tran
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Project Senior: Matthew Maestas
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MKar (D8 Callbox Coordinator routes to SAFEs as needed. Also concerned if loops for supercallboxes or census stations are damaged)

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see Tab 6 re RCTC 6/28/05
MKirkhoff@sanbag.ca.gov (SANBAG's Callbox and FSP Manager - if SBd County FSP beats may be affected or CFSP needed)
KLynn@sanbag.ca.gov

If items are checked in Section 5 on the Table tab:

MKirkhoff@sanbag.ca.gov (SANBAG DM Manager)
KLynn@sanbag.ca.gov

TMP ESTIMATE	EA	08-0K290K(00-0000-1499)	DATE	8/25/2011

1. Public Information	NO	**YES**	MAYBE	$10,000
2. Motorist Information Strategies	NO	YES	**MAYBE**	$0
3. Incident Management	NO	**YES**	MAYBE	$106,400
4. Construction Strategies	NO	YES	**MAYBE**	$0
5. Demand Management (DM)	NO	YES	**MAYBE**	$0
6. Alternate Route Strategies	**NO**	YES	MAYBE	$0
7. Other Strategies	**NO**	YES	MAYBE	$0
			TMP TOTAL	**$ 116,400**

TRANSPORTATION MANAGEMENT PLAN (TMP) DATA SHEET # 1 for PID, PSR, PR or PSE including DTM requirements for PSE and Construction Phase - This TMP is valid for **two years** from date of preparation, unless the project or impact changes.

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EA 08-0K290K(00-0000-1499) **DATE 8/25/2011**

08-SBD-10-PM 30.9/R33.3, Segment 1
PM R33.3/R36.9, Segment 2
PM R36.9/R39.1, Segment 3

Location: In Riverside County, on I-10, from Junction SR-38/Orange Street to San Bernardino/Riverside County line in/near the cities of Redlands and Calimesa.

Work: To perform lane replacement with K-rail long-term lane closure, median and shoulder widening, and ramp rehabilitation.

PLEASE NOTE:

Please Be Hereby Informed That This Project Shall Not Be Certified Without Approved Lane Requirement Chart/s (LRC) And Approved TMP Elements By DTM/TMP.

Date of TMP/Review Request memo: 7/6/2011

Documents available:

TMP request letter,Title Sheet, Typical Cross Section, Aerial Photo maps and Alternate 1 and 2.

SAMPLE TMP DATA SHEET - Instructions see Tab 6

Construction period per PE

EST START DATE	
EST END DATE	

BACKGROUND INFORMATION:

DURATION: 187 WORKING DAYS PER SEGMENT

PROJECT COST: $30,993,000-$40,951,000

TMP ESTIMATE: **$308,240** or #VALUE! OF THE PROJECT COST

Construction period per WPS

EST START DATE	Not Available
EST END DATE	Not Available

IMPACT	High	Medium	Low	NA
State HWY	X			
LocaL RD			X	
Ramps/ Connectors		X		

Details:*(Briefly explain traffic impacts and how you will mitigate them)*

If the TMP has been prepared by D8/Ops/TMP, use this signature block:

Prepared by Signature ORIGINAL SIGNED BY Cuong Tieu Date 8/25/2011

Name Cuong Tieu
Title Transportation Engineer
Organization Caltrans
Telephone/FAX (909) 383-4263
email cuong.tieu@dot.ca.gov

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Prepared by Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

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Title
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Date 12/15/2009

Al Afaneh
TMP/DTM Traffic Manager
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District 8/Operations MS-B20
464 W 4th Street 6th Floor
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Al_Afaneh@dot.ca.gov

Prepared for Minh Van Tran
cc:

Project Manager: Joe Meraz
Project Senior: Matthew Maestas
AAfaneh,

HYahya ,TSasis, or MJabson, Ops Surveillance
MKar (D8 Callbox Coordinator routes to SAFEs as needed. Also concerned if loops for supercallboxes or census stations are damaged)

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Benjamin Egiebor/D08/Caltrans/CAGov,
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Kim L Walker/D08/Caltrans/CAGov,
DTM

DerekWilliams@chp.ca.gov (D8 TMC CHP Officer)
JoWilson@chp.ca.gov (Inland Division Cozeep/Mazeep Coordinator)

HTupper@chp.ca.gov (CHP Inland Division FSP Coordinator)

see Tab 6 re RCTC 6/28/05
MKirkhoff@sanbag.ca.gov (SANBAG's Callbox and FSP Manager - if SBd County FSP beats may be affected or CFSP needed)
KLynn@sanbag.ca.gov

If items are checked in Section 5 on the Table tab:

MKirkhoff@sanbag.ca.gov (SANBAG DM Manager)
KLynn@sanbag.ca.gov

TMP ESTIMATE	EA	08-0K290K(00-0000-1499)	DATE	8/25/2011

1. Public Information	NO	**YES**	MAYBE	$24,000
2. Motorist Information Strategies	NO	YES	**MAYBE**	$0
3. Incident Management	NO	**YES**	MAYBE	$284,240
4. Construction Strategies	NO	YES	**MAYBE**	$0
5. Demand Management (DM)	NO	YES	**MAYBE**	$0
6. Alternate Route Strategies	**NO**	YES	MAYBE	$0
7. Other Strategies	**NO**	YES	MAYBE	$0
			TMP TOTAL	**$ 308,240**

Chart No. 3
EA#: 0K290K
Freeway/Expressway Lane Requirements

County: San Bernardino	Route/Direction: 10/EB & WB	PM: 30.9-R39.1

Closure Limits:

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Fridays	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Saturdays	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Sundays	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Legend:

3	Provide at least three adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Date: 7/26/11 Developed by: ct Validity: 18 months

Chart No. 4
EA#: 0K290K(00-0000-1499)
Complete Ramp Closure Hours

County: San Bernardino	Route/Direction: 10/EB	PM: 30.9-R39.1

Closure Limits:

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C																	C	C	
Fridays	C	C	C	C	C	C																		C	
Saturdays	C	C	C	C	C	C	C																	C	
Sundays	C	C	C	C	C	C	C																C	C	

Legend:

C Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Date: 7/26/2011 Developed by: ct Validity: 18 months

Chart No. 5
EA#: 0K290K(00-0000-1499)
Complete Ramp Closure Hours

County: San Bernardino	Route/Direction: 10/WB	PM: 30.9-R39.1

Closure Limits:

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C																	C	C	C	
Fridays	C	C	C	C	C																		C	C	
Saturdays	C	C	C	C	C	C																	C	C	
Sundays	C	C	C	C	C	C	C																C	C	

Legend:

C Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Date: 7/26/2011 Developed by: ct Validity: 18 months

ATTACHMENT I

STORM WATER DATA REPORT

APPENDIX E

Short Form - Storm Water Data Report

Dist-County-Route: 08-SBd-10
Post Mile Limits: 30.9/R39.1
Project Type: Pavement Rehab
Project ID (or EA): 0K290K-0800020559
Program Identification: HA22 201.122
Phase: ☒ PID
☐ PA/ED
☐ PS&E

Regional Water Quality Control Board(s): Santa Ana

1.	Is the project required to consider incorporating Treatment BMPs?	Yes ☐	No ☒
2.	Does the project disturb 5 or more acres of soil?	Yes ☐	No ☒
3.	Does the project disturb more than 1 acre of soil and not qualify for the Rainfall Erosivity Waiver?	Yes ☐	No ☒
4.	Does the project potentially create permanent water quality impacts?	Yes ☐	No ☒
5.	Does the project require a notification of ADL reuse	Yes ☐	No ☒

If the answer to any of the preceding questions is "Yes", prepare a Long Form – Storm Water Data Report.

Estimate Construction Start Date: May 2015 Construction Completion Date: May 2016
Separate Dewatering Permit (if yes, permit number) Yes ☐ Permit #_____ No ☒
Erosivity Waiver Yes ☐ Date: _____ No ☒

This Short Form – Storm Water Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Minh Van Tran 8/30/11
Minh Van Tran, Registered Project Engineer *Date*

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Cathy Jochai 8/30/11
Cathy Jochai, District/Regional SW Coordinator *Date*

[Stamp Required for PS&E only]

ATTACHMENT J

2R PROJECT CERTIFICATION

08-SBd-I 10
PM 30.899/R39.160
EA 0K290

2R PROJECT CERTIFICATION

A Safety Screening, as required by Design Information Bulletin Number 79, was conducted for the segment of highway identified above in the project description.

REGISTERED PROFESSIONAL ENGINEER
HAISSAM S. YAHYA
No. 56288
Exp. 12/31/2012
CIVIL
STATE OF CALIFORNIA

Haissam Yahya
Operations-Surveillance B, Office Chief

Date: 6/17/2011

This project will be scoped and designed as a 2R Project per the guidance in Design Information Bulletin Number 79. The Safety Screening that was performed will be an integral part of the development of this project.

Christy Connors
Deputy District Director, Design

Date: 6/20/11

I concur with the 2R Purpose and Need of this project.

Luis Betancourt
Design Coordinator

Date: 6/20/11

I concur with the 2R Purpose and Need of this project.

Deputy District Director, Maintenance
~~Steve~~ Pusey
STEPHEN F.

Date: 6.23.11

I concur that this project should be scoped and designed as a 2R Project per the guidance in Design Information Bulletin Number 79 and that the Safety Screening associated with this project will be an integral part of the development of this project. Therefore, since the appropriate Purpose and Need for this project is pavement resurfacing and restoration (2R), I have determined that this project is to be delivered as a 2R Project.

Deputy District Director, Operations
Syed Raza

Date: 7/6/11

Notes:
1. This certification document shall be filed in the district project history files.
2. A copy of this Certification shall be sent to Headquarters Division of Design, attention Design Report Routing.
3. District organizations with separate Deputies for Maintenance and Operations need the signatures of both individuals.

ATTACHMENT K

PROJECT CATEGORY ASSIGNMENT

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: CHRISTY CONNORS
DEPUTY DISTRICT DIRECTOR
DESIGN, MS-1267

Date: August 30, 2011

File: 08-SBd-10- PM 30.9/R39.1
Pavement Rehab
08-804-0K290K
0800020559K
201.122 – HA22

From: MATTHEW MAESTAS
ACTING OFFICE CHIEF
PRE-PROGRAMMING / ENGINEERING STUDIES

Subject: Request For Project Development Category Approval.

In accordance with Chapter 8, Section 5 of the Project Development Procedures Manual, your approval is requested to assign the above-mentioned project to Category 5.

A Supplemental Project Scope Summary Report (PSSR) is being prepared for the above referenced project. There are three alternatives being considered, which include the following:

Alternative 1: No-Build.

Alternative 2: Remove existing deteriorated mainline Portland Cement Concrete Pavement and replace with Jointed Plain Concrete Pavement, mill and overlay on/off ramps as needed.

Alternative 3: Crack, seat existing pavement and overlay with Hot-Mixed Asphalt Concrete. All work will be performed within the existing right of way. Attached you will find the project's location map, typical cross sections, and aerial maps.

The Category 5 is recommended based on the following project considerations:

1. The project will not require additional right of way.
2. The project will not increase highway traffic capacity.
3. The project will not require route adoption or freeway agreement.

4. The project is of minimal economic, social and environmental significance.

Approved By: _____ 8/30/11

CHRISTY CONNORS
Deputy District Director
Design

Date

ATTACHMENT L

LIFE CYCLE COST ANALYSIS SUMMARY

Life Cycle Cost Analysis Form

Phase 2 – PM 33.3/R36.9

Alternative 1 (Preferred Alternative):

Replace existing pavement with 1.15' JPCP, 0.10' HMA-A, 0.35' LCB, 0.70' AS-CL2.

Pavement Design Life: 40 Years		
Initial Construction Costs:	$ 19,112,000	
Initial Project Support Costs:	$ 0	
Future Maintenance & Rehabilitation Costs:**	$ 720,000	
TOTAL AGENCY COSTS:		$ 19,832,000
USER COSTS:		$ 3,526,000
TOTAL LIFE-CYCLE COSTS:		$ 23,358,000

Alternative 2:

Crash, Seat & Overlay with 0.1' HMA-A, 0.5' SAMI, 0.1' HMA (LC)

Pavement Design Life: 20 Years		
Initial Construction Costs:	$ 18,892,000	
Initial Project Support Costs:	$ 0	
Future Maintenance & Rehabilitation Costs:**	$ 10,670,000	
TOTAL AGENCY COSTS:		$ 29,562,000
USER COSTS:		$ 6,559,000
TOTAL LIFE-CYCLE COSTS:		$ 36,121,000

Reason that this is not Alternative 1:

This alternative has a higher life-cycle cost.

Life Cycle Cost Analysis Form

Phase 3 – PM R36.9/R39.1

Alternative 2 (Preferred Alternative):

Crash, Seat & Overlay with 0.1' HMA-A, 0.5' SAMI, 0.1' HMA (LC).

Pavement Design Life: 20 Years		
Initial Construction Costs:	$ 9,161,000	
Initial Project Support Costs:	$ 0	
Future Maintenance & Rehabilitation Costs:**	$ 5,900,000	
TOTAL AGENCY COSTS:		$ 15,061,000
USER COSTS:		$ 1,049,000
TOTAL LIFE-CYCLE COSTS:		$ 16,110,000

Alternative 1:

Replace existing pavement with 1.15' JPCP, 0.10' HMA-A, 0.35' LCB, 0.70' AS-CL2.

Pavement Design Life: 40 Years		
Initial Construction Costs:	$ 22,443,000	
Initial Project Support Costs:	$ 0	
Future Maintenance & Rehabilitation Costs:**	$ 1,101,000	
TOTAL AGENCY COSTS:		$ 23,544,000
USER COSTS:		$ 1,044,000
TOTAL LIFE-CYCLE COSTS:		$ 24,588,000

Reason that this is not Alternative 1:

This alternative has a higher life-cycle cost.

ASSUMPTONS

AND

INITIAL COST CALCULATION

(PAVEMENT REHAB)

PHASE 2

Procedures and Assumptions

(I-10 Pavement Rehabilitate)

Phase 2 – PM 33.3/R36.9

PROJECT INPUTS:

Total WB/EB surface area: 791,992 SF

Lane-Mile calculation: 791/992 SF/12'/5280 feet per mile

Total = 12.5 lane-mile

Based on Table 1 of the LCCA Manual for a project in PSSR phase, the following pavement alternatives were chosen for this analysis:

- 40-Year Lane Replacement (Preferred Alternative)
- 20-Year Crash, Seat & Flex Overlay

Analysis period of 55 years has been chosen based on these alternatives.

A discount rate of 4% was chosen based on rates currently used by Caltrans for prevailing interest rates.

The Maintenance Service Level (MSL) for this analysis is MSL-1.

Project support cost multipliers were not used for the initial cost estimate. The multiplier for the future improvements was taken form Table 3 of the LCCA Manual and listed below:

- Future CAPM ("Large" without Right-of-Way) 0.13

Maintenance schedules as well as annual maintenance costs were taken from Inland Valley Climate Region Table R-1 for two alternatives.

Rehabilitation costs for selected alternative were estimated using Tables 5a of the LCCA Manual:

- CAPM JPCP (CPR A) with RSC 4-hour curing $148,000/lane-mile
- CAPM JPCP (CPR B) with RSC 4-hour curing $106,000/lane-mile

TRAFFIC INPUTS:

Most Current Year AADT (Year 2007) = 148,000

Future Year AADT (2009) = 142,000

Annual Growth Rate for Traffic = 1.9%

Total Truck % for mainline = 12.9%

SUT = Single Unit Trucks as Percentage of AADT = 5%

Combination Trucks as Percentage of AADT = 12.9% - 5% = 7.9%

Speed Limit Under Normal Operating Conditions = 65 mph

Lanes Open in Each Direction Under Normal Conditions = 4 Lanes

The following values were taken from Table 6 of the LCCA Manual of Multi-Lane Level Highways:

- Free Flow Capacity (VPHPL) 1,950
- Queue Dissipation Capacity (VPHPL) 1,530
- Maximum AADT in both directions 386,440
- Work Zone Capacity (VPHPL) 1,360
- Maximum Queue Length (miles) 5

Value of User Time:

- $11.51 per hour for passenger cars
- $27.83 per hour for single unit trucks
- $27.83 per hour for combination trucks

Traffic Hourly Distribution Panel with California Weekday Default values was used.

ALTERNATIVE LEVEL INPUTS:

For Agency Cost, Activity Service Life, Maintenance Frequency, and Agency Maintenance Cost, see attached Table F-1, Segment 2.

Work Zone Length = 3.6 miles

Work Zone Speed Limit = 60 mph

This analysis assumes 3 lanes to remain open in each direction during construction.

Work Zone Duration (WZD) was set to zero for the original construction for selected alternative base on the LCCA Manual but WZD for subsequent maintenance and rehabilitation were calculated based on values for 8 to 12-hour closure from Table 8 (Productivity Estimate of Typical Future Rehabilitation) of the LCCA Manual:

- CAPM JPCP (CPR A) with RSC 4-hour curing 9
- CAPM JPCP (CPR B) with RSC 4-hour curing 7

TABLE F-1

RealCost Input Calculation (I-10 Pavement Rehab)
Phase 2 - PM 33.3/R36.9

Calc'd By: Minh Tran
Date: 8/28/2011
Revised: Minh Tran

PROJECT "LANE-MILES" = **12.5**

YEAR	TYPE	INITIAL CONSTRUCTION COST	REHAB CONSTR. UNIT COST ($/LANE-MILE)	REHAB CONSTRUCTION COST	PROJECT SUPPORT MULTIPLIER	PROJECT SUPPORT	AGENCY COST	ASL	AGENCY MAINT UNIT COST ($/LANE-MILE)	AGENCY MAINT TOTAL COST	PR	WZD
ALTERNATIVE 1: 40-year Lane Replacement												
0	40-YR REHAB (LANE REPLACE)	$19,112,000	--	--	0	$0	$19,112,000	45	$800	$10,000	0.15	86
45	CAPM (CPR A)	--	$148,000	$1,850,000	0.13	$240,500	$2,091,000	5	$3,000	$37,500	2	9
50	CAPM (CPR B)	--	$106,000	$1,325,000	0.13	$172,250	$1,498,000	10	$1,500	$18,800	2.8	7

Phase 2 - PM 33.3/R36.9

Calc'd By: XXXX
Date: 18-Aug-11
Revised: XXXX

PROJECT "LANE-MILES" = 42.50

YEAR	TYPE	INITIAL CONSTRUCTION COST	REHAB CONSTR. UNIT COST ($/LANE-MILE)	REHAB CONSTRUCTION COST	PROJECT SUPPORT MULTIPLIER	PROJECT SUPPORT	AGENCY COST	ASL	AGENCY MAINT UNIT COST ($/LANE-MILE)	AGENCY MAINT TOTAL COST	PR	WZD
ALTERNATIVE 2 - 20-Year CRASH, SEAT & OVERLAY												
0	20-YR REHAB(CSFOL)	$18,892,000	--	--	0	$0	$18,892,000	18	$1,400	$59,500	0.44	100
20	CAPM (FLEX OVERLAY)	--	$81,000	$3,442,500	0.13	$447,525	$3,891,000	5	$1,100	$46,800	1.99	24
25	CAPM (FO+JCPC SR)	--	$91,000	$3,867,500	0.13	$502,775	$4,371,000	5	$1,100	$46,800	1.55	30
30	20-YR REHAB (MSRO)		$280,000	$11,900,000	0.19	$2,261,000	$14,161,000	18	$1,400	$59,500	2.01	24
50	CAPM (FO+JCPC SR)	--	$91,000	$3,867,500	0.13	$502,775	$4,371,000	5	$1,100	$46,800	1.55	30
55	CAPM (FO+JPCP SR)	--	$91,000	$3,867,500	0.13	$502,775	$4,371,000	7	$800	$34,000	1.55	30

INPUT WORKSHEET			
1. Economic Variables			
Value of Time for Passenger Cars ($/hour)	$10.46		
Value of Time for Single Unit Trucks ($/hour)	$27.83		
Value of Time for Combination Trucks ($/hour)	$27.83		
2. Analysis Options			
Include User Costs in Analysis	Yes	Yes	
Include User Cost Remaining Service Life Value	Yes	Yes	
Use Differential User Costs	Yes	Yes	
User Cost Computation Method	Calculated	Calculated	
Include Agency Cost Remaining Service Life Value	Yes	Yes	
Traffic Direction	Both	Both	
Analysis Period (Years)	55		
Beginning of Analysis Period	2015		
Discount Rate (%)	4.0		
3. Project Details and Quantity Calculations			
State Route	Interstate 10		
Project Name	0K2090		
Region	Inland Empire		
County	San Bernardino		
Analyzed By			
Mileposts			
Begin	33.30		
End	36.90		
Length of Project (miles)	3.60		
Comments	Segment 2 - PM 33.3/R36.9		
4. Traffic Data			
AADT Construction Year (total for both directions)	128,167		
Cars as Percentage of AADT (%)	87.2		
Single Unit Trucks as Percentage of AADT (%)	5.0		
Combination Trucks as Percentage of AADT (%)	7.9		
Annual Growth Rate of Traffic (%)	1.9		
Speed Limit Under Normal Operating Conditions (mph)	65		
No of Lanes in Each Direction During Normal Conditions	4		
Free Flow Capacity (vphpl)	1950		
Rural or Urban Hourly Traffic Distribution	Urban	Urban	
Queue Dissipation Capacity (vphpl)	1530		
Maximum AADT (total for both directions)	386,440		
Maximum Queue Length (miles)	5.0		

5. Construction			
I. Alternative 1	40-Yr Lane Replacement		
Initial Construction	40-Yr Rehab (Lane Replacement)		
Agency Construction Cost ($1000)	$19,112.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	86		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	45.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	10		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #1	5-YR CAPM (CPR A) in Year 45		
Agency Construction Cost ($1000)	$2,091.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	9		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	37.5		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #2	10-YR CAPM (CPR B) in Year 50		
Agency Construction Cost ($1000)	$1,498.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	7		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	10.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	18.8		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #3			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

Rehabilitation #4			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Rehabilitation #5			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

Rehabilitation #6			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

II.	***Alternative 2***	20-Yr CSFOL	
	Initial Construction	20-Yr Rehab (CSFOL)	
	Agency Construction Cost ($1000)	$18,892.00	
	User Work Zone Costs ($1000)		
	Work Zone Duration (days)	100	
	No of Lanes Open in Each Direction During Work Zone	3	
	Activity Service Life (years)	18.0	
	Maintenance Frequency (years)	1	
	Agency Maintenance Cost ($1000)	59.5	
	Work Zone Length (miles)	2.00	
	Work Zone Speed Limit (mph)	60	
	Work Zone Capacity (vphpl)	1360	
	Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
	Inbound	Start	End
	First period of lane closure	0	6
	Second period of lane closure	20	24
	Third period of lane closure		
	Outbound	Start	End
	First period of lane closure	0	6
	Second period of lane closure	20	24
	Third period of lane closure		
	Rehabilitation #1	5YR-CAPM (FLEX OVERLAY) in Year 18	
	Agency Construction Cost ($1000)	$3,891.00	
	User Work Zone Costs ($1000)		
	Work Zone Duration (days)	24	
	No of Lanes Open in Each Direction During Work Zone	3	
	Activity Service Life (years)	5.0	
	Maintenance Frequency (years)	1	
	Agency Maintenance Cost ($1000)	46.8	
	Work Zone Length (miles)	2.00	
	Work Zone Speed Limit (mph)	60	
	Work Zone Capacity (vphpl)	1360	
	Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
	Inbound	Start	End
	First period of lane closure	0	6
	Second period of lane closure	20	24
	Third period of lane closure		
	Outbound	Start	End
	First period of lane closure	0	6
	Second period of lane closure	20	24
	Third period of lane closure		

Rehabilitation #2	5YR-CAPM (FO+JCPC SR) IN YEAR 23		
Agency Construction Cost ($1000)	$4,371.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	30		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	46.8		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #3	20-YR REHAB (MSRO) IN YEAR 30		
Agency Construction Cost ($1000)	$14,161.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	24		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	18.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	59.5		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #4	5YR-CAPM (FO+JCPC SR) IN YEAR 46		
Agency Construction Cost ($1000)	$4,371.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	30		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	46.8		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #5	7-YR CAPM (FO+JPCP SR) IN YEAR 51		
Agency Construction Cost ($1000)	$4,371.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	30		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	7.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	34		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #6			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

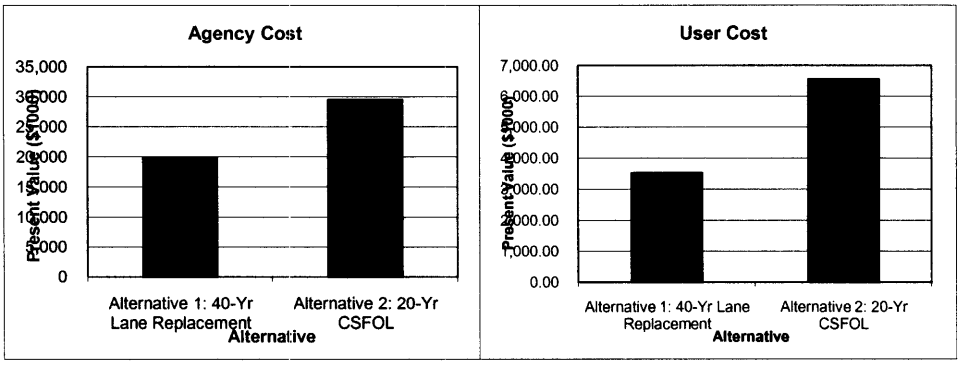
Probabilistic Life Cycle Cost Analysis Worksheet

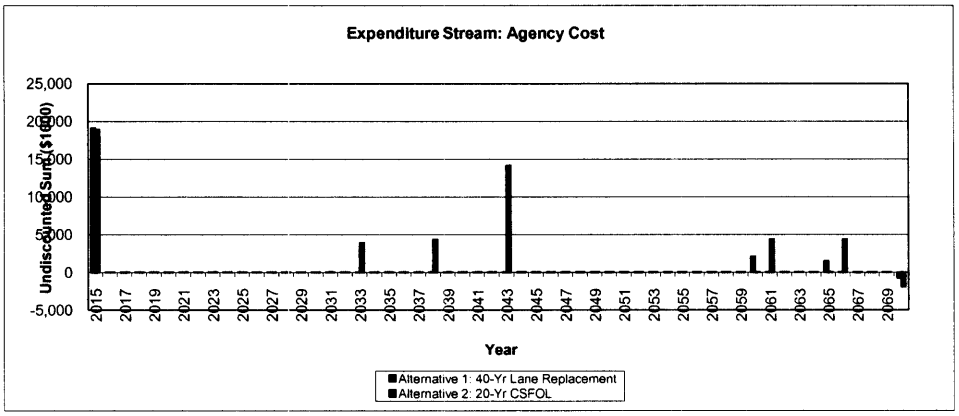
Update Results

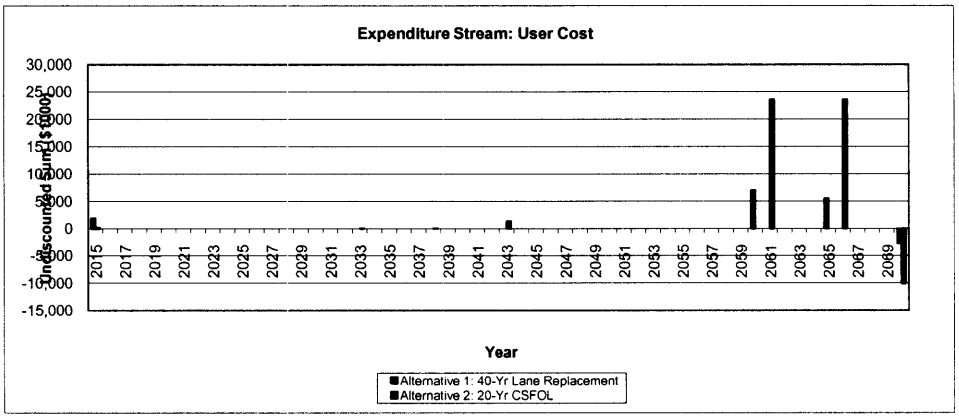
Total Cost				
	Alternative 1: 40-Yr Lane Replacement		Alternative 2: 20-Yr CSFOL	
Total Cost	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	*$22,617.20*	*$11,577.11*	*$50,870.32*	*$38,689.06*
Present Value	**$19,832.53**	**$3,526.48**	**$29,561.54**	**$6,558.48**
EUAC	$897.05	$159.51	$1,337.11	$296.65

Lowest Present Value Agency Cost	**Alternative 1: 40-Yr Lane Replacement**
Lowest Present Value User Cost	**Alternative 1: 40-Yr Lane Replacement**

Expenditure Stream				
	Alternative 1: 40-Yr Lane Replacemer		Alternative 2: 20-Yr CSFOL	
Year	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
2015	$19,112.00	$1,881.56	$18,892.00	$150.46
2016	$10.00		$59.50	
2017	$10.00		$59.50	
2018	$10.00		$59.50	
2019	$10.00		$59.50	
2020	$10.00		$59.50	
2021	$10.00		$59.50	
2022	$10.00		$59.50	
2023	$10.00		$59.50	
2024	$10.00		$59.50	
2025	$10.00		$59.50	
2026	$10.00		$59.50	
2027	$10.00		$59.50	
2028	$10.00		$59.50	
2029	$10.00		$59.50	
2030	$10.00		$59.50	
2031	$10.00		$59.50	
2032	$10.00		$59.50	
2033	$10.00		$3,891.00	$50.67
2034	$10.00		$46.80	
2035	$10.00		$46.80	
2036	$10.00		$46.80	
2037	$10.00		$46.80	
2038	$10.00		$4,371.00	$69.59
2039	$10.00		$46.80	
2040	$10.00		$46.80	
2041	$10.00		$46.80	
2042	$10.00		$46.80	
2043	$10.00		$14,161.00	$1,345.05
2044	$10.00		$59.50	
2045	$10.00		$59.50	
2046	$10.00		$59.50	
2047	$10.00		$59.50	
2048	$10.00		$59.50	
2049	$10.00		$59.50	
2050	$10.00		$59.50	
2051	$10.00		$59.50	
2052	$10.00		$59.50	
2053	$10.00		$59.50	
2054	$10.00		$59.50	
2055	$10.00		$59.50	
2056	$10.00		$59.50	
2057	$10.00		$59.50	
2058	$10.00		$59.50	
2059	$10.00		$59.50	
2060	$2,091.00	$6,943.14	$59.50	
2061	$37.50		$4,371.00	$23,592.10
2062	$37.50		$46.80	
2063	$37.50		$46.80	
2064	$37.50		$46.80	
2065	$1,498.00	$5,504.82	$46.80	
2066	$18.80		$4,371.00	$23,592.10
2067	$18.80		$34.00	
2068	$18.80		$34.00	
2069	$18.80		$34.00	
2070	($749.00)	($2,752.41)	($1,873.29)	($10,110.90)


Agency Cost
Present Value ($1000)
35,000
0
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL
Alternative
User Cost
Present Value ($1000)
7,000.00
0.00
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL
Alternative


Expenditure Stream: Agency Cost
Undiscounted Sum ($1000)
25,000
-5,000
2015
2017
2019
2021
2023
2025
2027
2029
2031
2033
2035
2037
2039
2041
2043
2045
2047
2049
2051
2053
2055
2057
2059
2061
2063
2065
2067
2069
Year
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL


Expenditure Stream: User Cost
Undiscounted Sum ($1000)
30,000
-15,000
2015
2017
2019
2021
2023
2025
2027
2029
2031
2033
2035
2037
2039
2041
2043
2045
2047
2049
2051
2053
2055
2057
2059
2061
2063
2065
2067
2069
Year
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL

ASSUMPTONS

AND

INITIAL COST CALCULATION

(PAVEMENT REHAB)

PHASE 3

Procedures and Assumptions

(I-10 Pavement Rehabilitate)

Phase 3 – PM R36.9/R39.1

PROJECT INPUTS:

Total WB/EB surface area: 1,486,848 SF

Lane-Mile calculation: 1,486,848 SF/12'/5280 feet per mile

Total = 23.5 lane-mile

Based on Table 1 of the LCCA Manual for a project in PSSR phase, the following pavement alternatives were chosen for this analysis:

- 40-Year Lane Replacement
- 20-Year Crash, Seat & Flex Overlay (CSFOL) (Preferred Alternative)

Analysis period of 55 years has been chosen based on these alternatives.

A discount rate of 4% was chosen based on rates currently used by Caltrans for prevailing interest rates.

The Maintenance Service Level (MSL) for this analysis is MSL-1.

Project support cost multipliers were not used for the initial cost estimate. The multiplier for the future improvements was taken form Table 3 of the LCCA Manual and listed below:

- Future CAPM ("Large" without Right-of-Way) 0.13

Maintenance schedules as well as annual maintenance costs were taken from Inland Valley Climate Region Table R-1 for selected alternative.

Rehabilitation costs for selected alternative were estimated using Tables 5a and 5b of the LCCA Manual:

- CAPM (FO) $81,000/lane-mile
- CAPM (FO+JCPC SR) with RSC of 4-hour curing $91,000/lane-mile
- 20-Yr Rehab (MSRO) with RSC of 4-hour curing $280,000/lane-mile
- CAPM (FO+JCPC SR) with RSC of 4-hour curing $91,000/lane-mile
- CAPM (FO+JCPC SR) with RSC of 4-hour curing $91,000/lane-mile

TRAFFIC INPUTS:

Most Current Year AADT (Year 2009) = 109,500

Future Year AADT (2055) = 94,600

Annual Growth Rate for Traffic = 2.4%

Total Truck % for mainline = 15.3%

SUT = Single Unit Trucks as Percentage of AADT = 3.9%

Combination Trucks as Percentage of AADT = 15.3% - 3.9% = 11.4%

Speed Limit Under Normal Operating Conditions = 65 mph

Lanes Open in Each Direction Under Normal Conditions = 3 Lanes

The following values were taken from Table 6 of the LCCA Manual of Multi-Lane Level Highways:

- Free Flow Capacity (VPHPL) 1,950
- Queue Dissipation Capacity (VPHPL) 1,530
- Maximum AADT in both directions 289,830
- Work Zone Capacity (VPHPL) 1,360
- Maximum Queue Length (miles) 5

Value of User Time:

- $11.51 per hour for passenger cars
- $27.83 per hour for single unit trucks
- $27.83 per hour for combination trucks

Traffic Hourly Distribution Panel with California Weekday Default values was used.

ALTERNATIVE LEVEL INPUTS:

For Agency Cost, Activity Service Life, Maintenance Frequency, and Agency Maintenance Cost, see attached Table F-2, Segment 3.

Work Zone Length = 2.2 miles

Work Zone Speed Limit = 60 mph

This analysis assumes 3 lanes to remain open in each direction during construction.

Work Zone Duration (WZD) was set to zero for the original construction for selected alternative base on the LCCA Manual but WZD for subsequent maintenance and rehabilitation were calculated based on values for 8 to 12-hour closure from Table 8 (Productivity Estimate of Typical Future Rehabilitation) of the LCCA Manual:

- CAPM (FO) 15
- CAPM (FO+JCPC SR) with RSC of 4-hour curing 18
- 20-Yr Rehab (MSRO) with RSC of 4-hour curing 15
- CAPM (FO+JCPC SR) with RSC of 4-hour curing 18
- CAPM (FO+JCPC SR) with RSC of 4-hour curing 18

TABLE F-2 (Cont.)
RealCost Input Calculation (I-10 Pavement Rehab)
Phase 3 - PM R36.9/R39.1

Calc'd By: Minh Tran
Date: 8/29/2011
Revised: Minh Tran

PROJECT "LANE-MILES" = 23.50

YEAR	TYPE	INITIAL CONSTRUCTION COST	REHAB CONSTR. UNIT COST ($/LANE-MILE)	REHAB CONSTRUCTION COST	PROJECT SUPPORT MULTIPLIER	PROJECT SUPPORT	AGENCY COST	ASL	AGENCY MAINT UNIT COST ($/LANE-MILE)	AGENCY MAINT TOTAL COST	PR	WZD
OPTION 2 - 20-Year CRASH, SEAT & OVERLAY												
0	20-YR REHAB(CSFOL)	$9,161,000	--	--	0	$0	$9,161,000	18	$1,400	$32,900	0.44	56
20	CAPM (FLEX OVERLAY)	--	$81,000	$1,903,500	0.13	$247,455	$2,151,000	5	$1,100	$25,900	1.99	15
25	CAPM (FO+JCPC SR)	--	$91,000	$2,138,500	0.13	$278,005	$2,417,000	5	$1,100	$25,900	1.55	18
30	20-YR REHAB (MSRO)		$280,000	$6,580,000	0.19	$1,250,200	$7,831,000	18	$1,400	$32,900	2.01	15
50	CAPM (FO+JCPC SR)	--	$91,000	$2,138,500	0.13	$278,005	$2,417,000	5	$1,100	$25,900	1.55	18
55	CAPM (FO+JPCP SR)	--	$91,000	$2,138,500	0.13	$278,005	$2,417,000	7	$800	$18,800	1.55	18

TABLE F-2

RealCost Input Calculation (I-10 Pavement Rehab)

Phase 3 - PM R36.9/R39.1

Calc'd By: Minh Tran
Date: 8/29/2011
Revised: Minh Tran

PROJECT "LANE-MILES" = **19.1**

YEAR	TYPE	INITIAL CONSTRUCTION COST	REHAB CONSTR. UNIT COST ($/LANE-MILE)	REHAB CONSTRUCTION COST	PROJECT SUPPORT MULTIPLIER	PROJECT SUPPORT	AGENCY COST	ASL	AGENCY MAINT UNIT COST ($/LANE-MILE)	AGENCY MAINT TOTAL COST	PR	WZD
OPTION 1: 40-year Lane Replacement												
0	40-YR REHAB (LANE REPLACE)	$22,443,000	–	–	0	$0	$22,443,000	45	$800	$15,300	0.15	130
45	CAPM (CPR A)	–	$148,000	$2,826,800	0.13	$367,484	$3,195,000	5	$3,000	$57,300	2	13
50	CAPM (CPR B)	–	$106,000	$2,024,600	0.13	$263,198	$2,288,000	10	$1,500	$28,700	2.8	10

INPUT WORKSHEET		
1. Economic Variables		
Value of Time for Passenger Cars ($/hour)	$10.46	
Value of Time for Single Unit Trucks ($/hour)	$27.83	
Value of Time for Combination Trucks ($/hour)	$27.83	
2. Analysis Options		
Include User Costs in Analysis	Yes	Yes
Include User Cost Remaining Service Life Value	Yes	Yes
Use Differential User Costs	Yes	Yes
User Cost Computation Method	Calculated	Calculated
Include Agency Cost Remaining Service Life Value	Yes	Yes
Traffic Direction	Both	Both
Analysis Period (Years)	55	
Beginning of Analysis Period	2015	
Discount Rate (%)	4.0	
3. Project Details and Quantity Calculations		
State Route	Interstate 10	
Project Name	0K290K	
Region	Inland Empire	
County	San Bernardino	
Analyzed By		
Mileposts		
Begin	36.90	
End	39.10	
Length of Project (miles)	2.20	
Comments	Segment 3 - PM R36.9/R39.1	
4. Traffic Data		
AADT Construction Year (total for both directions)	94,600	
Cars as Percentage of AADT (%)	84.7	
Single Unit Trucks as Percentage of AADT (%)	3.9	
Combination Trucks as Percentage of AADT (%)	11.4	
Annual Growth Rate of Traffic (%)	2.4	
Speed Limit Under Normal Operating Conditions (mph)	65	
No of Lanes in Each Direction During Normal Conditions	3	
Free Flow Capacity (vphpl)	1950	
Rural or Urban Hourly Traffic Distribution	Urban	Urban
Queue Dissipation Capacity (vphpl)	1530	
Maximum AADT (total for both directions)	289,830	
Maximum Queue Length (miles)	5.0	

5. Construction			
I. Alternative 1	40-Yr Lane Replacement		
Initial Construction	40-Yr Rehab (Lane Replacement)		
Agency Construction Cost ($1000)	$22,443.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	130		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	45.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	15.3		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #1	5-YR CAPM (CPR A) in Year 45		
Agency Construction Cost ($1000)	$3,195.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	13		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	57.3		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #2	10-YR CAPM (CPR B) in Year 50		
Agency Construction Cost ($1000)	$2,288.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	10		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	10.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	28.7		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #3			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

Rehabilitation #4			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Rehabilitation #5			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

Rehabilitation #6			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

II.	***Alternative 2***	20-Yr CSFOL		
	Initial Construction	20-Yr Rehab (CSFOL)		
	Agency Construction Cost ($1000)	$8,995.00		
	User Work Zone Costs ($1000)			
	Work Zone Duration (days)	56		
	No of Lanes Open in Each Direction During Work Zone	3		
	Activity Service Life (years)	18.0		
	Maintenance Frequency (years)	1		
	Agency Maintenance Cost ($1000)	32.9		
	Work Zone Length (miles)	2.00		
	Work Zone Speed Limit (mph)	60		
	Work Zone Capacity (vphpl)	1360		
	Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
	Inbound	Start	End	
	First period of lane closure	0	6	
	Second period of lane closure	20	24	
	Third period of lane closure			
	Outbound	Start	End	
	First period of lane closure	0	6	
	Second period of lane closure	20	24	
	Third period of lane closure			
	Rehabilitation #1	5YR-CAPM (FLEX OVERLAY) in Year 18		
	Agency Construction Cost ($1000)	$2,151.00		
	User Work Zone Costs ($1000)			
	Work Zone Duration (days)	15		
	No of Lanes Open in Each Direction During Work Zone	3		
	Activity Service Life (years)	5.0		
	Maintenance Frequency (years)	1		
	Agency Maintenance Cost ($1000)	25.9		
	Work Zone Length (miles)	2.00		
	Work Zone Speed Limit (mph)	60		
	Work Zone Capacity (vphpl)	1360		
	Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
	Inbound	Start	End	
	First period of lane closure	0	6	
	Second period of lane closure	20	24	
	Third period of lane closure			
	Outbound	Start	End	
	First period of lane closure	0	6	
	Second period of lane closure	20	24	
	Third period of lane closure			

Rehabilitation #2	5YR-CAPM (FO+JCPC SR) IN YEAR 23		
Agency Construction Cost ($1000)	$2,417.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	18		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	25.9		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #3	20-YR REHAB (MSRO) IN YEAR 30		
Agency Construction Cost ($1000)	$7,831.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	15		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	18.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	32.9		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #4	5YR-CAPM (FO+JCPC SR) IN YEAR 46		
Agency Construction Cost ($1000)	$2,417.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	18		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	5.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	25.9		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Rehabilitation #5	7-YR CAPM (FO+JPCP SR) IN YEAR 51		
Agency Construction Cost ($1000)	$2,417.00		
User Work Zone Costs ($1000)			
Work Zone Duration (days)	18		
No of Lanes Open in Each Direction During Work Zone	3		
Activity Service Life (years)	7.0		
Maintenance Frequency (years)	1		
Agency Maintenance Cost ($1000)	18.8		
Work Zone Length (miles)	2.00		
Work Zone Speed Limit (mph)	60		
Work Zone Capacity (vphpl)	1360		
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			
Outbound	Start	End	
First period of lane closure	0	6	
Second period of lane closure	20	24	
Third period of lane closure			

Rehabilitation #6			
Agency Construction Cost ($1000)			
User Work Zone Costs ($1000)			
Work Zone Duration (days)			
No of Lanes Open in Each Direction During Work Zone			
Activity Service Life (years)			
Maintenance Frequency (years)			
Agency Maintenance Cost ($1000)			
Work Zone Length (miles)			
Work Zone Speed Limit (mph)			
Work Zone Capacity (vphpl)			
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)			
Inbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			
Outbound	Start	End	
First period of lane closure			
Second period of lane closure			
Third period of lane closure			

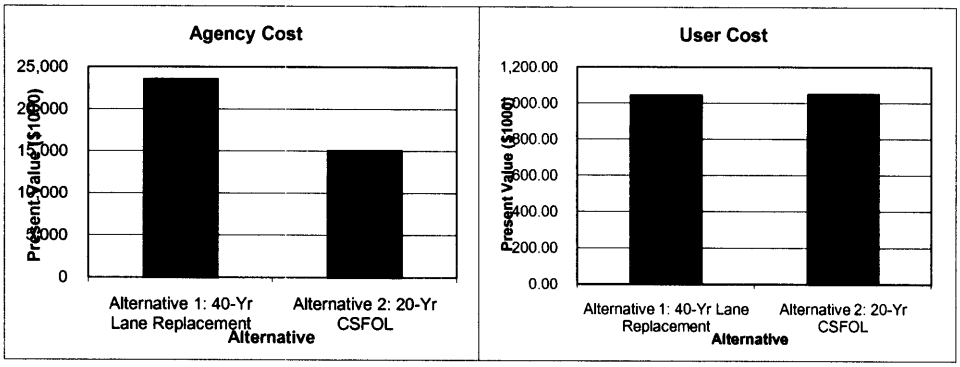
Probabilistic Life Cycle Cost Analysis Worksheet

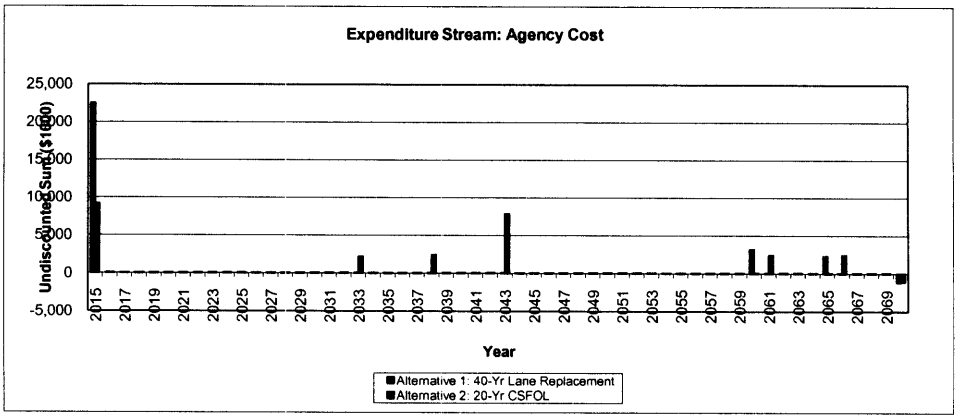
Update Results

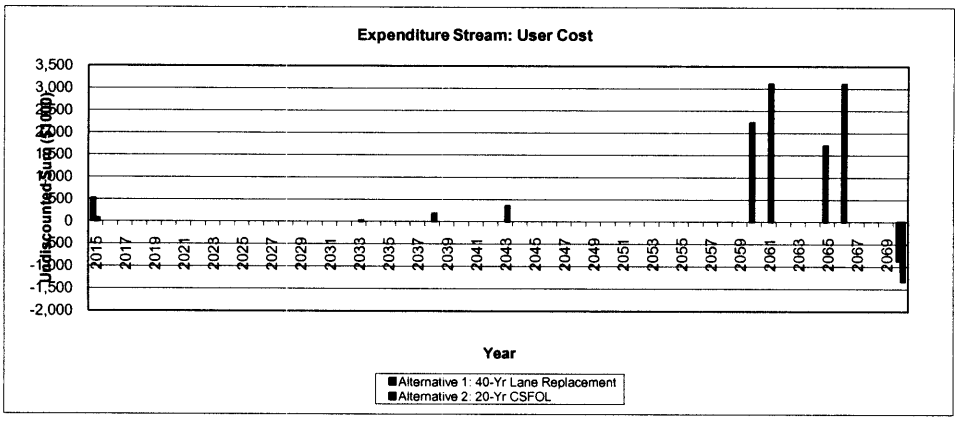
Total Cost				
	Alternative 1: 40-Yr Lane Replacement		Alternative 2: 20-Yr CSFOL	
Total Cost	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	*$27,799.23*	*$3,621.76*	*$26,843.96*	*$5,505.93*
Present Value	**$23,544.29**	**$1,044.38**	**$15,060.80**	**$1,049.20**
EUAC	$1,064.94	$47.24	$681.22	$47.46

Lowest Present Value Agency Cost	**Alternative 2: 20-Yr CSFOL**
Lowest Present Value User Cost	**Alternative 1: 40-Yr Lane Replacement**

Expenditure Stream				
	Alternative 1: 40-Yr Lane Replacemer		Alternative 2: 20-Yr CSFOL	
Year	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
2015	$22,443.00	$517.64	$9,161.00	$67.74
2016	$15.30		$32.90	
2017	$15.30		$32.90	
2018	$15.30		$32.90	
2019	$15.30		$32.90	
2020	$15.30		$32.90	
2021	$15.30		$32.90	
2022	$15.30		$32.90	
2023	$15.30		$32.90	
2024	$15.30		$32.90	
2025	$15.30		$32.90	
2026	$15.30		$32.90	
2027	$15.30		$32.90	
2028	$15.30		$32.90	
2029	$15.30		$32.90	
2030	$15.30		$32.90	
2031	$15.30		$32.90	
2032	$15.30		$32.90	
2033	$15.30		$2,151.00	$27.80
2034	$15.30		$25.90	
2035	$15.30		$25.90	
2036	$15.30		$25.90	
2037	$15.30		$25.90	
2038	$15.30		$2,417.00	$180.73
2039	$15.30		$25.90	
2040	$15.30		$25.90	
2041	$15.30		$25.90	
2042	$15.30		$25.90	
2043	$15.30		$7,831.00	$351.77
2044	$15.30		$32.90	
2045	$15.30		$32.90	
2046	$15.30		$32.90	
2047	$15.30		$32.90	
2048	$15.30		$32.90	
2049	$15.30		$32.90	
2050	$15.30		$32.90	
2051	$15.30		$32.90	
2052	$15.30		$32.90	
2053	$15.30		$32.90	
2054	$15.30		$32.90	
2055	$15.30		$32.90	
2056	$15.30		$32.90	
2057	$15.30		$32.90	
2058	$15.30		$32.90	
2059	$15.30		$32.90	
2060	$3,195.00	$2,241.86	$32.90	
2061	$57.30		$2,417.00	$3,104.11
2062	$57.30		$25.90	
2063	$57.30		$25.90	
2064	$57.30		$25.90	
2065	$2,288.00	$1,724.51	$25.90	
2066	$28.70		$2,417.00	$3,104.11
2067	$28.70		$18.80	
2068	$28.70		$18.80	
2069	$28.70		$18.80	
2070	($1,144.00)	($862.25)	($1,035.86)	($1,330.33)


Agency Cost
Present Value ($1000)
25,000
0
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL
Alternative
User Cost
Present Value ($1000)
1,200.00
0.00
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL
Alternative


Expenditure Stream: Agency Cost
Undiscounted Sum ($1000)
25,000
-5,000
Year
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL


Expenditure Stream: User Cost
Undiscounted Sum ($1000)
3,500
-2,000
Year
Alternative 1: 40-Yr Lane Replacement
Alternative 2: 20-Yr CSFOL

ATTACHMENT M

SCOPING TEAM FIELD REVIEW
ATTENDANCE ROSTER

6-21-11

FIELD REVIEW

MORNING

1. CATALINO FINING MTCE.
2. BRUCE KEAN
3. CINDY MONTGOMERY MTCE SUPV. (IC)
4. MICHAEL NAKAMA MTCE. SUPT. (IC)
5. Lee Mahsereli HS Pavement
6. [illegible] HS Port
7. [illegible] Planning
8. CHINH PHAM Planning

AFTERNOON

1. [illegible]
2. [illegible] Planning
3. [illegible]